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For more than two decades, teacher efficacy has been identified as being crucial for improving educational reform, teacher education, teachers' teaching behaviors, and teachers' attitudes toward inclusive schooling. This study utilized the Teacher Sense of Efficacy Scale (TSES) (Tschannen-Moran & Woolfolk Hoy, 2001), the Scale of Teachers' Attitudes Toward Inclusive Classrooms (STATIC) (Cochran, 1998) and demographic information to investigate the levels of teacher efficacy beliefs and attitudes toward inclusion of 123 special education teachers involved in co-taught education classrooms in 10 school districts across North Carolina.

School levels and several predictor variables were examined to determine the influence they had on teacher efficacy beliefs and teachers' attitudes toward inclusion. Results revealed that (a) there was no significant difference between school levels and TSES and STATIC overall scores; (b) the number of hours of professional development in inclusive practices was a significant predictor for TSES and STATIC overall scores and four subscale scores (instructional strategies, classroom management, professional issues and logistical concerns); and (c) years experience teaching in co-taught classes was a significant predictor of classroom management. Additional analyses revealed the strength of relationship between the TSES and STATIC overall scores were stronger for special education teachers who had 0-3 years and more than 10 years of experience co-teaching. The relationship between the TSES and STATIC overall scores were weaker for special education teachers who had 4-10 years of teaching experience in co-taught

classrooms. Overall results indicate a strong sense of efficacy and attitudes toward inclusive classes among North Carolina special education teachers involved in co-teaching.

AN ANALYSIS OF SPECIAL EDUCATION TEACHERS' OVERALL SENSE OF EFFICACY BELIEFS AND ATTITUDES TOWARD CO-TAUGHT CLASSROOMS

by

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Approved by

_____
Committee Chair

Dedicated to:

My husband, Hank, for his ever present love and support

My wonderful children, Quad, Erin, Alan, and my daughter-in-law, Keisha for their constant encouragement

My mother, Priscilla Tremble Mainer (Deceased), a teacher for all children, even those who were most challenging

APPROVAL PAGE

This dissertation has been approved by the following committee of the Faculty of The Graduate School at The University of North Carolina at Greensboro.

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CHAPTER I

INTRODUCTION

Recently, the National Center for Education Statistics (NCES) (2004-2005) reported 13.8% of students enrolled in public schools were students with disabilities and 52.1% of students (ages 6-21 years old) spent 80% or more of their instructional time in the general education classroom. In North Carolina, the location of this study, 14.2% of students in public schools were identified with disabilities (NCES, 2004-2005). Because public schools' range of diversity has widened in the last couple of decades with more students with exceptionalities being included in general classroom settings (Banks et al., 2005), more than ever before a critical need exists for all teachers to be prepared to address the educational needs linked to student development, language and cognitive differences, and disabilities.

Critical research focusing on new and experienced special education teachers continues to lag behind that focusing on general education teachers. In the past, little attention had been given to teacher preparation aimed at educating the diverse learners, including those who are ethnically, socio-economically, and linguistically diverse as well as those with disabilities. Between 1998 and 1999, 13% of the students attending public schools were students with disabilities. Approximately 47% of those students with disabilities spent 80% or more of their instructional time in general classroom settings (National Center for Education Statistics, 1999).

Federal laws and policies passed in the last 25-30 years have focused on the urgency to promote academic achievement in all children, thus giving each child the opportunity to contribute to society. Most recently, the No Child Left Behind Act of 2001 (NCLB) and the Individuals with Disabilities Education Improvement Act (IDEIA, 2004) strengthened the expectations that children with disabilities receive their education instruction in the least restrictive environment (LRE). The concept of LRE has meant placement in programs as close to the general education classroom as realistic as possible to promote learning and achieve goals and objectives outlined on the Individual Education Program (IEP). Supporting the premise of state and federal policies that all children can learn, education has moved into an era of educators having no excuses for not teaching students, no matter the students' background or initial capacity (Mazzeo, 2001).

Special education often has served as the catalyst of broadly framed collaborative relationships. For example, education for children with disabilities mandates special educators become engaged with other education professionals, especially with the general education teachers, to meet the goals and objectives identified for student progress. Inclusion is one of the emerging principles guiding the education of students with disabilities, while seeking to create educational settings that meet the needs of all students (Kavale, 2005). Pressures for the inclusion of students identified with mild, moderate, and even severe and profound disabilities in the general education setting, curriculum, and community activities are growing (Price, Mayfield, McFadden, & Marsh, 2000-2001). These pressures have caused teacher preparation programs to review and revise

courses and field experiences which will lead to approaches that are supportive of children and accepting of differences. Pressures of inclusion also have stressed the need for general education teachers, as well as special education teachers, to understand inclusion and take an active role in collaborative efforts to make it successful (Burke & Sutherland, 2004; Kavale & Forness, 2000). Special education and general education professionals must recognize the strengths of children with disabilities and consider differences as positives in all learning environments.

For more than two decades, teacher efficacy has been identified as being crucial for improving teacher education and educational reform (Ashton, 1984; Goddard, Hoy, & Woolfolk Hoy, 2000; Rimm-Kaufman & Sawyer, 2004; Wheatley, 2002). Teachers' sense of efficacy beliefs have been repeatedly associated with positive teaching behaviors (Henson, 2001), effective instructional and management strategies (Emmer & Hickman, 1990), effective planning and collaboration (Gibson & Dembo, 1984), teachers' enthusiasm for teaching (Allinder, 1994; Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998); teachers' willingness to try new strategies (Ghaith & Yaghi, 1997); amount of effort teachers demonstrate in the classroom (Gibson & Dembo, 1984; Tschannen-Moran et al., 1998); teacher retention (Brouwers & Tomic, 2000; Darling-Hammond, Chung, & Frelow, 2002; Johnson & Birkeland, 2003); positive classroom atmosphere and greater classroom-based decision making (Borko & Putnam, 1996; Moore & Esselman, 1992; Richardson & Placier, 2001; Tschannen-Moran et al., 1998); and teacher attitudes toward inclusion (Ceren, 2005) or co-taught classrooms.

Teacher efficacy beliefs, interrelated with teacher attitudes, have been linked to the success of the education of students with disabilities receiving instructions in inclusive education environments and participating in the general education curriculum. Although teacher efficacy has been identified as an influential factor in effective classrooms (Allinder, 1994; Brownell & Pajares, 1999; Pajares, 1992), its significance of co-taught classrooms is still being investigated. Welch, Brownell, and Sheridan (1999) reviewed 40 articles on co-teaching and concluded that teachers reported positive attitudes toward the co-teaching approach known as teaming. However, this early review did not consider student outcome and efficacy beliefs of special education teachers involved in co-taught classroom.

In another study of co-teaching, Murawski and Swanson (2001) examined the impact of efficacy beliefs on co-teaching and found moderate effects in academic achievement, social outcomes, attitudes, and referrals to special education. Weiss (2004) reviewed 60 studies and reported that special education teachers' roles in co-taught classrooms are not always clearly specified. The findings reported that the studies reviewed used vague or subjective language as well as limited amounts of research on efficacy beliefs.

The special education teachers' in co-taught classrooms confidence in their knowledge and skills is essential in helping general education teachers to focus on the primary educational goal of promoting academic progress for all students. Continued exploration of teacher efficacy-the elusive construct that has been identified as influencing many variables- seems to be a research focus that may provide supportive

information for special education teachers in co-taught classrooms. Therefore, the important issue concerning the overall sense of efficacy beliefs of special education teachers in co-taught classrooms was the impetus of this study. The purpose of the study was to extend the research findings of the teacher efficacy construct of special education teachers in co-taught classrooms, explore their attitudes toward inclusive practices, and identify new avenues of research key to understanding teacher efficacy and its relationship to inclusion and co-teaching.

Conceptual Framework

This study utilized the measure of teacher efficacy proposed by Tschannen-Moran and Hoy (2001), as summarized in Figure 1. This instrument assesses critical tasks associated with teaching while tapping into teachers' personal competence and task analyses. The conceptual framework for this study is rooted in Bandura's construct of self-efficacy (1977, 1986, 1997). Bandura's sources of efficacy beliefs (i.e., mastery experiences, vicarious experiences (modeling), verbal persuasion, and physiological cues) are thought to provide the background for the mechanism of cognitive processing that leads to efficacy beliefs in teachers (Tschannen-Moran et al., 1998). Tasks analysis of an instructional task and the evaluation of the teacher's ability to organize and execute the actions needed for desired outcome determine an individual's sense of efficacy. This sense of efficacy leads to new goals, effort, and persistence by the teacher, increasing teacher performance/behaviors in the classroom.

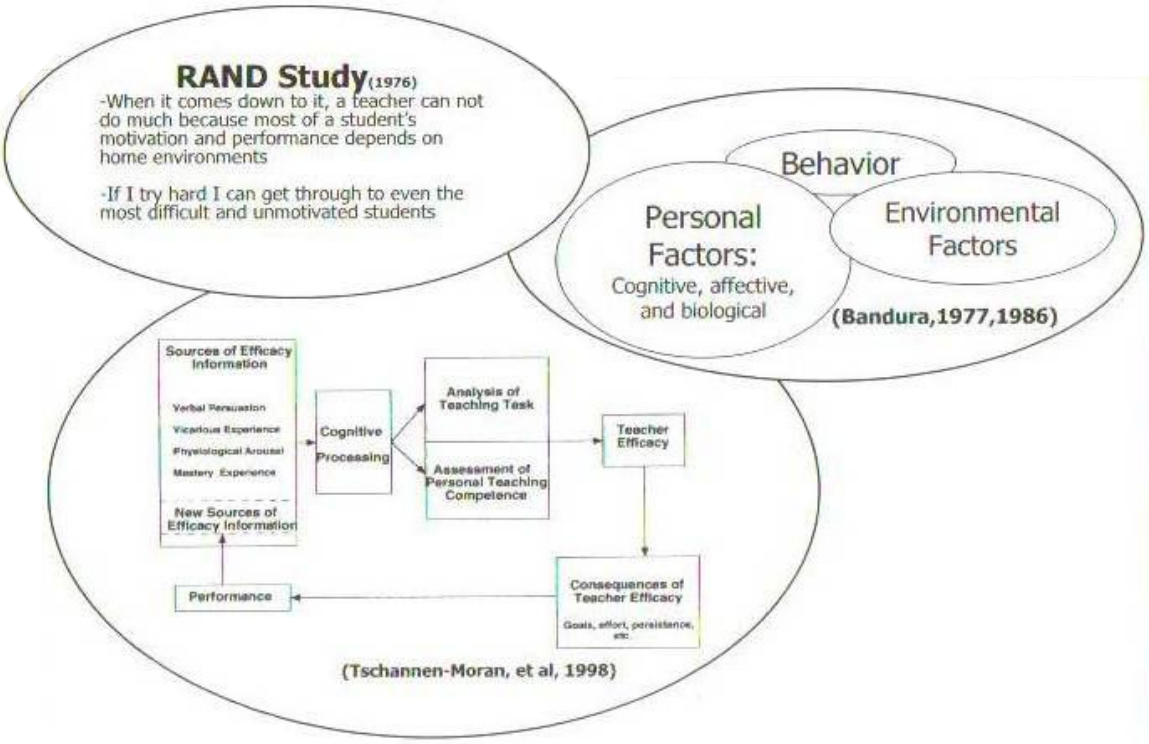

Figure 1. Conceptual Framework

Purpose of the Study

The purpose of this study was to utilize the Teacher Sense of Efficacy Scale (TSES) and the Scale of Teachers' Attitudes Toward Inclusive Classrooms (STATIC) to investigate the levels of teacher efficacy beliefs and attitudes toward inclusion of special education teachers involved in co-taught education classrooms in 10 school districts across North Carolina. The study also examined variables influencing teacher efficacy beliefs related to student engagement, instructional strategies, and classroom management; examined variables that influence special education teachers' attitudes toward co-taught classrooms; and investigated the relationship between overall efficacy

beliefs and attitudes of special education teachers toward co-taught classrooms at all school levels (elementary, middle and high schools).

Research Questions

The following questions guided this research investigation:

1. Are the factor structures of previous research using the TSES and STATIC similar for the population of special education teacher in this study?
2. How similar are the novice and experienced teachers in this study to previous studies based on the two instruments' descriptive statistics (mean, standard deviation, reliability, and standard error of measurement)?
3. Of the following variables, number of years teaching, number of years in inclusive environments, number of clock hours of professional development, and percent of students with disabilities participating in inclusive classrooms, what are the best predictors of the overall score and the subscales of teacher efficacy for special education teachers?
4. Of the following variables, number of years teaching, number of years in inclusive environments, number of clock hours of professional development, and percent of students with disabilities participating in inclusive classrooms, what are the best predictors of the subscales on the STATIC for special education teachers involved in co-taught classrooms?
5. Are there significant mean differences on the overall score of TSES for elementary, middle, and high school special education teachers in co-taught classrooms?

6. Are there significant mean differences on overall score of the STATIC for special education teacher who co-taught at the elementary, middle, or high school levels?
7. Does the strength of the relationship between special education teachers' attitudes toward inclusion and their overall sense of efficacy change based on years of co-teaching in a general education classroom?

Definitions of Key Terms

*Inclusion***:** The belief system shared by every member of a school as a learning community, often based on a mission statement or vision, emphasizing the commitment to educate all children so they can reach their potential (Friend, 2006).

*Inclusive education environments***:** Settings where diverse groups of learners feel welcomed, teach and learn from each other, and are actively engaged in a supportive environment in order for ALL students (with and without disabilities) to achieve at higher levels (Skoning, 2007).

Collaboration: Direct interaction of two co-equal parties voluntarily engaged in shared decision-making as they work toward a common goal (Friend & Cook, 2007).

Co-teaching: Service delivery model in which two educators, one typically a general education teacher and one a special education teacher or other specialist, combine their expertise to jointly teach a heterogeneous group of students with and without disabilities or special needs in a single classroom for part or all of the school day (Friend, 2006).

*Self-efficacy***:** An individual's expectation that he/she will be able to perform actions required to bring desired outcomes (Bandura, 1977).

*Teacher efficacy beliefs***:** Teachers' confidence in his or her capabilities to organize and execute courses of action required to successfully accomplish a specific teaching task in a particular context (Tschannen-Moran, Hoy & Hoy 1998). Although several definitions of teacher efficacy beliefs have been proposed, this study used this definition throughout.

Delimitations and Limitations of the Study

This study used a survey instrument, a quantitative research method, to examine the relationships among variables (teacher efficacy and attitudes toward inclusion) to answer questions concerning a sample of North Carolina's special education teachers' perceptions toward inclusion and co-taught classrooms. This quantitative study used measures with adequate validity and reliability to collect data based on the theoretical framework for teacher efficacy. It then incorporated the application of descriptive and inferential statistical methods (Creswell, 2003). Surveys provide a quantitative description of trends, attitudes, opinions, and perceptions of a population by studying a sample of that population (Creswell, 2003). Prior to discussing the implications of this study, several limitations need to be considered when interpreting the results.

First, the sample in this study was relatively small consisting of 123 participating special education teachers from 10 local education agencies (LEAs) in North Carolina. The North Carolina statistical profile (2007) reports 306 local education agencies (LEAs); 1786 elementary schools (pre-K-8th grades); 406 secondary schools (9th-12th

grades); 108 combined schools; 1,428,912 students enrollment; 77,077 students with disabilities; and 11,135.3 special education teachers. Participants were from the same state located in southeastern United States with similar demographics. These facts may influence the overall response to the survey items.

Second, participants were randomly selected by the Director of Exceptional Children (EC director) for each school district. This prevented any follow-up or clarification of demographic information that was used in the study's data analyses. Items on the surveys were teacher rated and therefore, the results reported largely examined the participants' perceptions without observations or interviews to support the ratings. The surveys were field tested, but questions on the instruments included forced-choice items. The Teachers' Sense of Efficacy Scale (TSES) used a 9-point scale and the Scale of Teachers' Attitudes Toward Inclusive Classrooms (STATIC) used a 6-point Likert type scale which may not have provided clear enough choices for the respondents. Comments were encouraged, but many of the responding participants chose not to explain why certain responses were given.

Third, some of the resulting data collected from the demographic information were highly skewed. The skewed data could have influenced the outcomes of the analyses. Finally, the study relied mainly on self-reported data for predictor and criterion variables and cannot be generalized to all special education teachers in North Carolina without additional research.

Significance of the Study

The significance of this study has the potential to be influential for many educational reforms relative to the inclusion of students with disabilities in the general education classroom and the development of a confident special education teaching force that can be effective in inclusive education environments. Findings were not as definitive as expected by the researcher but provided information that can be used by novice and experienced teachers, administrative personnel, and teacher educators.

Teacher efficacy belief has been found to be a powerful teacher characteristic (Bandura, 1986) that affects many aspects of teacher and classroom effectiveness. The data obtained from this study could be important in the development of teacher preparation coursework and field experiences that provide opportunities to interact with students with disabilities in co-taught classrooms. The findings identified the need and the importance for increased in-service and pre-service training for general and special education teachers. These trainings would provide opportunities to acquire knowledge and skills aimed at increasing general and special education teacher confidence in and attitudes toward inclusive practices in general education classrooms. Also highlighted in the data analyses and respondents' comments were the need for additional knowledge and experiences in the logistics of co-taught classrooms (e.g., types of disabilities, planning, materials, administrative support, communication, and classroom management).

Review of the literature noted that efficacy beliefs and attitudes toward co-taught classrooms of beginning special education teachers are influenced by previous experiences with students with disabilities in various settings. Therefore teacher

preparation program designs should include authentic experiences that extend their preservice teachers' knowledge and skills.

CHAPTER II

LITERATURE REVIEW

One growing educational challenge is meeting the needs of a more diverse student population. Today, all children are expected to come to school and stay in school, whereas in the past not all children were afforded this right (Best, 2001). For example, children with significant learning problems and physical disabilities were kept at home, or they attended private, separate facilities (Best, 2001). Children from poor and immigrant families worked in factories, in the fields, or held other jobs to help support the family. The function of the public school system was to reinforce and preserve the status quo which was to prepare children for the responsibilities and privileges of adult life (McLaren, 1994).

The role of education changed in the last half of the 20th century. Educators adapted to teaching children from diverse backgrounds with diverse needs as changes took place in the public school's student demographics. The increasingly popular trend of educating students with disabilities with their non-disabled peers brought conflicts over what to teach, how to teach it, and in what education setting the teaching should take place (Nelson, Carlson, & Palonsky, 1996). Co-teaching in the general education classroom emerged over the last decade as the service delivery model to address the needs of all students with and without disabilities (Fleming & Bauer, 2007). As educators prepare to take active roles in determining appropriate instructional strategies that

promote student learning in an inclusive academic setting, they must be innovative, adaptive, and prepared to use a variety of approaches that are effective with students with a variety of abilities.

Teacher education programs must grapple with the development of coursework and field experiences that help pre-service teachers analyze the social fractures, the achievement gaps of children with and without special needs, and new ways of functioning as an educator, especially in the era of inclusion (Sorin & Klein, 2002). Teacher preparation programs do not graduate teacher candidates as finished products (Farnan & Grisham, 2005). The newly graduated teachers follow a developmental continuum of learning and practice, which over time could result in excellent teaching practices in a lifelong profession of educating the diverse student population that enters our public schools each day.

Goodlad (1990) believed that important conditions for effective teacher education preparation were not in place and radical reforms were necessary for teachers to develop the skills, attitudes, and dispositions required in the schooling of all children. Since 1990, several education reform initiatives have been developed influencing general education as well as special education (NCSET, 2004). These reforms have identified a need to improve teacher development of knowledge and practices that promote learning in students with and without disabilities. Important conditions that could strengthen teacher education focused on innovative curriculum development, innovative instructional practices, structural innovations (Ferrero, 2005), and inclusion.

Themes identified throughout these reform initiatives include valuing diversity, learning about different cultures, building bridges between home and school, preparing to serve as a role model for students, making connections between theory and practice, and strengthening subject matter knowledge of general and special education (Ferrero, 2005). Studies of teacher education examining conditions that promote teacher effectiveness and students' academic achievement have found strong correlations between self-efficacy and educational attitudes (Gerhardt & Brown, 2006). Educators and researchers note teachers' self efficacy beliefs maybe key determinants of effective teaching practices with students with diverse abilities and disabilities (Pajares, 1992).

A Theoretical Framework for Self-Efficacy Beliefs

Bandura (1986) posited that individuals possess a self system that enables them to exercise a measure of control over their thoughts, feelings, motivation, and actions. This self-system provides a person with a reference mechanism for perceiving, regulating, evaluating behaviors, and therefore their capabilities to change their surroundings. For example, teachers who are motivated and confident in their teaching will be more effective in helping students learn, persist in difficult situation, and remain longer in the teaching profession. This system also is a strong determinant of how well knowledge and skills are acquired (Pajares, 1996a) for many professions, including the teaching profession.

Self efficacy beliefs are highly predictive of human behavior (Pajares, 1996b). The concept describes a system of beliefs that a person holds regarding his or her self-perceived ability to change while performing a specific or general task (Bandura, 1997).

Self-efficacy beliefs are linked to a certain activity domains such as cognitive, motivational, affective, or selective processes (Bandura, 1997). Self-efficacy judgments are task specific and situation specific, meaning they are made in reference to some type of goal (Bandura, 1997). Consistent with social cognitive theory, Bandura (1977) argued that individuals create and develop perceived capabilities of self that become important to the achievement of goals in the future and the control they exercise over their environment. Self-efficacy as defined by Bandura (1977, 1986, 1997) is belief in one's capabilities to organize and execute the courses of action required to produce given accomplishments. It does not refer to a person's capabilities or skills, only what the person believes he or she is capable of accomplishing under certain circumstances. Self-efficacy is a judgment about a task capability that is not naturally evaluative (Gist & Mitchell, 1992).

In the process of a person creating and using self-efficacy belief, the person engages in a behavior, interprets the results of the actions, and using his or her interpretations, creates or develops the beliefs about his or her capabilities (see Figure 1 on p. 6). For example, the beliefs pre-service teachers develop about their academic capabilities resulting from their participation in coursework and field experiences determine what they teach and how well they use the knowledge and skills they have learned to teach it effectively (Plourde, 2002). Self-efficacy beliefs are influenced by the resulting interpretations of a person's actions. An individual's actions viewed as failures lower a person's self-efficacy beliefs. On the other hand, perceived successful performances raise self-efficacy beliefs.

Sources of Self-Efficacy Development

Exploration of the role of self-efficacy in human behaviors has determined four sources from which persons can develop high and low self-efficacy beliefs (Bandura, 1986). The sources of self-efficacy development include (a) enactive mastery experiences, (b) vicarious experiences, (c) verbal persuasion, and (d) physiological and affective states. First, Bandura (1986) emphasizes self-efficacy beliefs are acquired through a person's mastery experiences, and these are the most influential source of self-efficacy beliefs (Bandura, 1997). A resilient sense of efficacy requires experience in overcoming obstacles through perseverance. Some setbacks and difficulties in a person's pursuit of goals serve a useful purpose in teaching the individual that success usually requires sustained effort or perseverance. After people become convinced they have what it takes to succeed, they persevere in the face of adversity and quickly rebound from setbacks. By sticking it out through tough times, the people emerge stronger.

The second source for the development of self-efficacy beliefs is the information obtained from observing the effects produced by the actions of other individuals or vicarious experiences. This second source is felt to be a weaker source of belief than mastery experiences. Models are significant in this source and are important in the development of self-beliefs that influence the course and direction of a person's life (Schunk, 1981, 1983a, 1989). Seeing people similar to themselves succeed by sustained effort raises observers' beliefs that they too possess the capabilities to master comparable activities to succeed. By the same token, observing others' failures despite high effort lowers observers' judgments of their own efficacy and undermines their efforts.

Additionally, another influence of vicarious experience is social comparisons with other individuals and peer modeling; both can be powerful in the development of perceived competence. For instance, if persons feel they have comparable abilities to their model they experience negative effects of self-efficacy when the model experiences failure while if persons believe their capabilities are superior to their model's capabilities the failures of the model do not have a negative effect (Bandura, 1977, 1986; Brown & Inouye, 1978).

Verbal persuasion is the third source in the creation and development of self-efficacy beliefs. Exposure to the verbal judgment of others is weaker than the other three sources of efficacy beliefs, but it can be important in the development of individuals' self-beliefs (Zeldin & Pajares, 1997). Effective verbal persuasion cannot be filled with empty praise or rhetoric (Bandura, 1997), but instead it must cultivate persons' beliefs in their capabilities, while ensuring success is attainable. Positive verbal persuasion works to encourage and give power to a person's self-beliefs, and negative verbalization works to weaken them. Bandura (1986) posits that it is easier to weaken self-efficacy beliefs through negative appraisal than to strengthen these beliefs through structured feedback.

The fourth and final source of self-efficacy development is an environment that is primarily self-created. Efficacy beliefs can be influenced by physiological states such as stress, anxiety, fatigue, arousal, and varying moods. Individuals tend to measure their confidence by their physiological state. Aversive thoughts and fears concerning individuals' capabilities seem to lower self-efficacy beliefs which trigger agitations which lead to inadequate performances. This last source of information on the

development of self-efficacy, as well as the others, should not be used to judge individuals' competence.

The Influences of Self-Efficacy Beliefs

Understanding self-efficacy beliefs and the influence this construct has on individuals' success is very significant. Self-efficacy beliefs influence individual motivation, self-regulation, and the choices people make throughout the course of life (Herman, Meece, & McCombs, 2000; Pajares, 1997). Most persons tend to choose activities in which they feel confident and competent. They avoid those in which they are not. James (1985) once wrote that experience is essentially what individuals choose to attend to; those choices are instrumental in providing the avenue through which individuals exercise control over the events that affect their lives. Bandura (1997) notes that self-efficacy beliefs are strong predictors of personal accomplishments and therefore constitute the key factor of human agency. Bandura felt that individuals developed generalized expectancies about behavioral contingencies based on experience, therefore developing specific beliefs about one's own personal effectiveness and ability.

The self efficacy construct influences thought patterns and emotions that enable people to pursue goals, persist though adversity, rebound from temporary setbacks, and exercise some control over events that affect their lives. This construct has been linked to clinical problems (Bandura, 1983), social skills (Moe & Ziess, 1982), assertiveness (Lee, 1983, 1984), choices people make, the effort and perseverance in a task (Bandura, 1986), and teaching behaviors (Pajares, 1996). The information provided in each source of efficacy development should be selected, integrated, interpreted, and recollected to form

a basis for the interpretations of persons' development of self-beliefs. These interpretations are magnified in the goals, efforts, and persistence that teachers use which affect their performance.

Educational Research on Self-Efficacy Beliefs

Over the past thirty years, self-efficacy has been tested in a variety of disciplines and settings (Bandura, 1983), but much remains unknown about this construct. Bandura (1986, 1997) writes that self-efficacy is a future oriented belief about the competence a person will display in a particular situation. Self–efficacy beliefs have received increasing attention in educational research (Pintrich & Schunk, 1995). Three main areas of self-efficacy research in education include: (a) efficacy and college majors and their career choices, (b) school age students' self-efficacy, and (c) efficacy beliefs of teachers. Self-efficacy's wide application over various behavioral domains such as self-regulation, goal setting, modeling, and academic performance has increased its popularity in contemporary education research, school reform, and teacher preparation.

Teacher Efficacy Beliefs

Definition of Teacher Efficacy Beliefs

The term teacher efficacy is a sub-category of self-efficacy that grew out of Bandura's social cognitive theory (1986). Bandura (1977) defines teacher efficacy as a teacher's judgment of his or her capabilities to bring about desired outcomes of student engagement and learning, even with those students who may be difficult to teach or unmotivated. A study by Fletcher (1990) defines efficacy of teachers as a teacher's sense of ability to function as an instructional leader in the classroom and knowledge of and

contribution to school instructional policy. Teacher efficacy defined by others includes the extent to which teachers believe they have the capacity to affect student performance (Berman, McLaughlin, Bass, Pauly, & Zellman, 1997); teachers' perceptions about their own capabilities to foster students' learning and engagement (Shaughnessy, 2004); teachers' beliefs about their or conviction that they can influence how well students learn even the difficult and unmotivated students (Guskey & Passaro, 1994); and the extent to which teachers believe they can control the reinforcement of actions within themselves or in the environment (Rotter, 1966). Tschannen-Moran and Woolfolk Hoy (2001) defined teacher efficacy as teachers' confidence in their ability to promote students' learning. The definition by Tschannen-Moran and Woolfolk Hoy (2001) was important when investigating components influencing the success of co-teaching and inclusion of students with special needs in the general curriculum.

Theoretical Construct of Teacher Efficacy

The origin of the concept of teacher efficacy was the result of a simple hunch by the researchers of the RAND Corporation over 30 years ago. The researchers revised an existing self-efficacy questionnaire based on Rotter's theoretical construct of social learning theory or locus control theory (1966). They conceived teacher efficacy as the extent to which teachers believed that they could control the reinforcement of their actions (Tschannen-Moran & Woolfolk Hoy, 2001). The RAND researchers added two items that examined teacher characteristics and student learning (Armor et al., 1976). The two Likert scale items measured teachers' beliefs of internal and external control of teaching activities on student learning and laid the groundwork for studies in teacher

efficacy. The items on the efficacy instrument asked teachers to make judgment on issues of classroom management and family background influence on student academic progress:

1. When it comes right down to it, a teacher really can't do much because most of a student's motivation and performance depends on his or her home environment.
2. If I try hard, I can get through to even the most difficult or unmotivated students.

The resulting teacher responses were then compared to the composite score of the judgments (Guskey & Passaro, 1994). The first item indicated general teaching efficacy or a general belief that teachers can influence student learning. The second item indicated personal teaching efficacy or an individual teacher's confidence in his or her own ability to impact student learning (Ashton & Webb, 1986; Gibson & Dembo, 1984). In the past, some researchers treated teacher efficacy as a one-dimensional construct, while others considered teacher efficacy as two dimensional. Similar to the RAND study, Hoy and Woolfolk (1990) found teacher efficacy consists primarily of two sets of efficacy beliefs labeled general teaching efficacy and personal teaching efficacy. Personal teaching efficacy (PTE) refers to the teacher's assessment of his or her own competence to promote student achievement. The focus of personal teaching efficacy is on a teacher's ability to perform actions and the power of those actions to influence student learning (Meijer & Foster, 1988; Ross, 1994; Soodak & Podell, 1993, 1996). Research studies have reported that teachers' beliefs of personal efficacy affect their instructional activities

and their educational processing. General teaching efficacy (GTE), on the other hand, refers to the influence expectations or school environments have on student learning (Gibson & Dembo, 1984).The focus of general teaching efficacy is on the ability of teachers to teach students despite external factors that influence their learning (Ghaith & Yaghi, 1997; Ross, 1994; Lin & Gorrell, 1998).

Measurements of Teacher Efficacy Beliefs

The success of the RAND study was instrumental in the development of several other measures seeking to expand and refine the construct of teacher efficacy (Tschannen-Moran & Woolfolk Hoy, 2001). Three instruments using the foundation laid by Rotter (1982) developed longer, more comprehensive measures than the RAND instrument. The first instrument was developed by Guskey (1981) shortly after the first RAND study. His 30-item instrument yielded a measure of how much teachers assumed responsibility for student outcomes, whether failure or success. The instrument was later reduced to 10 items.

A second instrument called the *Teacher Locus of Control* (TLC) was proposed by Rose and Medway (1981). This 28-item measure was proven to be a better predictor of teacher behaviors than the Rotter scale (1982). The third instrument, *The Webb Scale* (Ashton, Olejnik, Crocker, & McAuliffe, 1982) attempted to extend the measure of teacher efficacy by reducing the problem of social desirability bias. Teachers who scored high on this instrument reported less negative affectivity in their teaching. *The Webb Scale* was never popular and no published work has been found beyond the original study.

In comparing personal teaching efficacy and general teaching efficacy, several researchers have found that the influence of the environment overwhelms a teacher's beliefs in the ability to influence student learning. Teachers believe that reinforcement of their teaching efforts are external or outside their control, that is, general teacher efficacy (GTE) (Tschannen-Moran et al., 1998). External control extends beyond the capabilities of the teacher and involves factors such as education in the home; conflict, violence, or substance abuse in the home or community; social and economic realities concerning race, gender, and class; and physiological, emotional, and cognitive needs that influence a student's motivation and school performance.

Another theoretical concept utilized in the identification of teacher efficacy grew out of Bandura's work (1977). Bandura believed that a teacher's level of confidence influenced the effort he or she exhibited during a task, persistence when faced with obstacles, resilience in dealing with failures, and stress level or depression when coping with demanding situations (Bandura, 1997). Teachers confident of their ability to teach difficult or unmotivated students exhibited internal control, since identified as personal teacher efficacy (PTE). This group of teachers exhibit confidence in their abilities to overcome environmental factors. They also are confident they are adequately trained and have the experience to develop strategies for overcoming obstacles to student learning. These competent, confident feelings are measured by teachers' responses to items on a scale used to measure general self-efficacy and personal self-efficacy for the instruction of students, classroom management, and student engagement (Hoy & Woolfolk, 1990).

The sum of the two levels determines teacher efficacy beliefs (Tschannen, Hoy & Hoy, 2001).

Several instruments grew out of Bandura's (1986) social cognitive theory and efficacy construct, including the popular instrument developed by Gibson and Dembo (1984). This instrument has been the tool utilized by numerous researchers to investigate the influence of teachers' sense of efficacy on their behaviors and attitudes, on student achievement, and on the relationship of teacher efficacy to school structure and climate (Tschannen-Moran & Woolfolk Hoy, 2002). Results from the use of Gibson and Dembo's instrument highlighted the importance of the teacher efficacy construct as related to motivation, student academic outcome, subject-matter modifications, classroom management, and special education.

Gibson and Dembo (1984) were the first researchers to link teacher efficacy and the theory of self-efficacy presented by Bandura (1977) to create a new instrument for measuring teacher efficacy. The instrument was developed to assess what were thought to be the two aspects of teacher efficacy (personal teaching efficacy and general teaching efficacy) aspects reflected in the RAND study (Ashton & Webb, 1986). The instrument created by Gibson and Dembo (1984) initially contained 30 items that were narrowed to16, and the resulting instrument has been used extensively in research studies of teacher efficacy (Soodak & Podell, 1993; Woolfolk & Hoy, 1990; Tschannen-Moran, Hoy & Hoy, 1998).

Initially, research on teacher efficacy was hindered by construct validity, reliability, and measurement problems. A number of unanswered issues continued to

puzzle researchers working in the area (Bong, 1996). Issues of concern involved assessing the adequacy of traditional assessments; defining and expanding the aspects of teacher efficacy; interpreting aspects of general teaching efficacy and personal teaching efficacy that emerge on quantitative measures; understanding factors contributing to the development of strong, positive teacher efficacy; determining the flexibility or stability of a sense of efficacy once developed; relating teachers' sense of efficacy to teaching behaviors; and identifying the influence of teachers' sense of efficacy on students' beliefs and achievement (Pajares, 1997). The perceived weaknesses of teacher efficacy scales have recently led several researchers to develop more promising instruments.

Guskey and Passaro (1994) reviewed items on the Gibson and Dembo (1984) teacher efficacy scale and determined that the two factors (PTE and GTE) confused the type of efficacy with positive and negative responses and questioned whether the factors identified two types of efficacy. Guskey and Passaro (1994) developed a scale to measure teacher efficacy by revising the Gibson and Dembo (1984) 16-item scale, including the two RAND items and three items from a scale proposed by Woolfolk and Hoy (1990). Several items on the new scale (Guskey & Passaro, 1994) were reworded. Responses to the revised items by 283 inservice teachers and 59 preservice teachers found that two dimensions of efficacy did exist. However, the factor analysis of data revealed factors fell along the lines of internal and external control orientations rather than personal and general efficacy (Fives, 2003). Bandura (1997, 2001) recommended including various levels of task demands that indicate the strength of teachers' efficacy beliefs, since teachers' sense of efficacy is not necessary consistent across the many different types of

tasks teachers must perform. Measures of teacher efficacy, if they are to be useful, need to explore teachers' assessments of competence across a wide range of activities and tasks.

The model of teacher efficacy developed by Tschannen-Moran and her colleagues (1998) suggests that a measure that has strong validity and reliability must first assess personal competence but also analyze tasks in terms of resources and constraints of teaching context. Many of the present measures of teacher efficacy do not include both dimensions. For example, the Rand instrument measures personal teaching efficacy but not personal challenges. Tschannen-Moran and her colleagues (1998) and Henson, Bennett, Sienty, and Chambers (2000) believed after almost 25 years a new measure of teacher efficacy was needed to assess those teachers' tasks that Bandura's instrument failed to accurately reflect.

Tschannen-Moran and Woolfolk Hoy (2001), based on the advice of Pajares (1996a) developed an efficacy instrument, the Ohio State Teacher Efficacy Scale (OSTES), which possessed items corresponding to the tasks teachers face in school. They started with the efficacy instruments grounded in Rotter's social learning theory. Tschannen-Moran and Woolfolk Hoy explored the correlates of teacher efficacy revealed using various instruments to uncover patterns that that might suggest a better understanding of the teacher efficacy construct. The instruments explored included the Rand studies, Teacher Locus of Control (TLC) developed by Rose and Medway (1981), the 30-item instrument measuring Responsibility for Student Achievement developed by Guskey (1981), and the Webb Scale (Ashton et al., 1982).

Second, Tschannen-Moran and Woolfolk Hoy (2001) examined research that grew out of Bandura's social cognitive theory and his construct of self-efficacy. Bandura's (1986) theoretical construct purported outcome expectancy, an individual's estimate of the possible consequences of performing tasks at the expected competence level and efficacy expectancy, an individual's conviction that he or she can devise required actions to perform a given task. Two questions were devised to be included on the OSTES to address the two expectancies. Bandura (1997) provided clear distinctions between his self-efficacy construct and Rotter's theories. His data revealed that perceived self-efficacy and locus of control are not the same phenomenon. Perceived self-efficacy (beliefs about whether a person can generate certain action) and locus of control (beliefs about whether actions affect outcomes) have little or no empirical relationship with each other. Perceived self-efficacy is a strong predictor of behavior, while locus of control focus is on causal beliefs about relationship between actions and outcomes.

After exploring several formats of efficacy scales, the two researchers and eight graduate students at Ohio State University worked on developing a new efficacy scale based on Bandura's scale but including an expanded list of teacher capabilities (Tschannen-Moran & Woolfolk Hoy, 2001). The new measure, the *Ohio State Teacher Efficacy Scale* (OSTES), initially contained 52 items assessing the full range of teaching tasks and capabilities. After further refinement through three studies, the final instrument was comprised of two forms: a long form with 24 items and a short form with 12 items. The instruments could appropriately be used for assessing the efficacy beliefs of both pre-service and in-service teachers. Three dimensions of efficacy are assessed:

instructional strategies, student engagement, and classroom management representing the richness of teachers' work and the requirements for effective teaching.

The development of the Teacher Sense of Efficacy Scale (TSES), formerly referred to as the *Ohio State Teacher Efficacy Scale,* was a giant step, even though further testing and validation was needed, in the assessment and understanding of a construct that has been found significant in this era of education reform. This instrument assesses a broad range of capabilities that teachers consider important to quality teaching of students with and without disabilities (Tschannen-Moran & Woolfolk Hoy, 2001). The TSES opened the door for future research of general education and special education teachers' efficacy beliefs. Since teachers' efficacy beliefs are presumed stable and formalized early, more information is needed to determine which factors contribute to efficacy development and efficacy judgments in pre-service and in-service teachers; general teachers and special education teachers.

Studies of Teachers' Efficacy Beliefs

Walker, Greene, and Mansell (2006) studied several theoretical relationships among motivational characteristics of college students that could be changed with intervention, such as academics. Correlations of academics, self-efficacy, and intrinsic motivation were found to contribute to meaningful cognitive engagement. These findings could aid in the understanding of the coursework and field experiences that may be used to change the attitudes and academics of pre-service teaching candidates and aid in the development of higher levels of teacher efficacy beliefs. In addition, research conducted by Gerhardt and Brown (2006) on individual differences of goal orientation and

affectivity on teacher efficacy development showed teacher efficacy development results depend on the disposition of trainees and initial levels of efficacy.

Development of teacher efficacy. Recent research inquiries emphasize the importance of the development of teacher efficacy to the reform initiatives of regular and special education. The National Science Foundation (NSF) (1996) funded a project in West Virginia to examine the effects of professional development on long term teacher efficacy beliefs and use of the internet in the classroom. Several findings are significant to efficacy development included these:

1. Teachers improved their levels of self-efficacy after the summer workshop and maintained those levels years later.
2. That combining an intense summer workshop with additional online courses demonstrated a significant difference in some levels of self-efficacy over just having a professional development workshop.
3. Certain external factors affect teacher efficacy over the long term.

Moore and Esselman (1992) designed a study to identify the relationships among variables of teachers' sense of efficacy, teacher empowerment and classroom atmosphere. Several factors related to teacher efficacy beliefs were examined and included teacher empowerment, instructional climate, and degree of teacher collegiality, along with the identification of differences across grade levels. These authors' findings included the following outcomes:

1. efficacy, empowerment, and instructional climate differ significantly across schools, levels, and grades

2. personal and teaching efficacy were highly related
3. school climate tended to be related positively and negatively to classroom practices and teachers' collegiality
4. a strong relationship exists among efficacy, classroom, and school decision-making
5. teachers' efficacy contributions of context variables to achievement differed across achievement levels, grades, and test content

Woolfolk Hoy and Tschannen-Moran (2002) suggest teacher efficacy is a concept through which teacher quality can be described, observed, and measured to show teacher change. Teacher efficacy has been associated with many aspects of teaching and learning, including when the students are difficult and unmotivated. Some powerful forces of teacher efficacy involved in the schooling process include a sense of personal accomplishment and a view of teacher work as important; an enthusiasm to try new, creative practices; feelings of being personally responsible for student learning; greater job satisfaction, correlating with teacher retention; the embrace of democratic decision making between teacher and students; and a persistence in helping students who are struggling or have special needs (Pajares, 1996b, 1997).

Problems throughout the history of teacher efficacy measurements and current advances with various instruments have motivated developers of efficacy scales to consider several directional foci. However, given the current, potential educational value of the teacher efficacy construct in reform efforts for general education and special education, many feel it is efficacious to move teacher efficacy research beyond the realm

of designs using correlations (Henson, 2001). Very few studies of teacher efficacy have indicated change in teachers' efficacy beliefs are influenced by meaningful, active intervention. In the absence of interventions, it is difficult to tell whether teacher efficacy is a cause or a consequence of the adoption of more powerful teaching techniques (Ross, 1994). Positive changes in self-efficacy only occur when persuasive feedback forcefully disrupts the preexisting disbelief in one's capabilities (Bandura, 1997).

Personal teaching efficacy and general teaching efficacy appear to be influenced by different levels of training and professional development. Ross (1994) found that general teaching efficacy increased after a limited period of training on cooperative learning, while personal teaching efficacy remain the same. Experienced teachers' personal teaching efficacy beliefs seem to be particularly difficult to change because of the internal nature of the beliefs that have solidified with experience and time. Professional development opportunities, which come in many forms, are thought to affect teachers' efficacy beliefs by compelling teachers to think critically and actively behave to improve their classrooms and instructional practices (Henson, 2001).

Participatory teacher research is a promising professional development strategy that has been suggested as one means of fostering meaningful teachers' efficacy (Cochran-Smith & Lyte, 1999; Noffke, 1997). Participatory teacher research is a collaborative process by which teachers critically examine their classrooms, develop and implement educational interventions, and evaluate the effectiveness of those interventions (Knight & Boudah, 1998). Theses activities are foundational to self-efficacy growth (Bandura, 1997) because the teacher research models capitalize on critical thought and

action while allowing teachers to actively participate in the development of practical knowledge of teaching. Henson (2001) reported large effects for personal and general teaching efficacy gains from the collaborative nature of teacher research. More research measures are needed to explore the issue of teachers' efficacy and change in those efficacy beliefs.

Smylie (1988) found that teacher efficacy beliefs played a key role in teachers' development of knowledge and practices that influenced their effectiveness in instructional strategies, interaction with students and other professionals, and their commitment to a career in teaching (Tschannen-Moran et al., 1998). Teacher efficacy also predicts students' achievement beliefs across various areas and levels. These facts about teacher efficacy have made it an important construct in improving teacher education and promoting educational reform (Goddard, Hoy, & Woolfolk Hoy, 2000; Rimm-Kaufman & Sawyer, 2004; Ross, 1998; Wheatley, 2002). It has also been essential in the continued exploration of opportunities by teacher educators on how to foster the development of high levels of teacher efficacy in pre-service and in-service teachers.

Teacher efficacy and preservice and novice teachers. Few longitudinal studies have been conducted that track teacher efficacy across the early years. Bandura's research (1997) found that efficacy is more easily influenced in the early years of learning, and Woolfolk Hoy (2000) extended this concept to imply that the first years of teaching could be critical to the long term development of teacher efficacy. Change in pre-service and in-service teachers can be seen through various stages of teacher efficacy development. Some of the most powerful influences on the development of teacher

efficacy take place during student teaching and the induction year through the source Bandura named mastery experiences (Woolfolk Hoy, 2000). Once teacher efficacy beliefs are established, they appear to be resistant to change.

Efficacy beliefs of pre-service teachers have been linked to teachers' attitudes and custodial control (Willower, Eidell, & Hoy, 1967, 1973). Pupil control (i.e., classroom management) has been conceptualized on a continuum ranging from custodial to humanistic. Custodial pupil control stresses the continuance of order, distrust of students, and punitive measures to ensure control of students. Humanist pupil control emphasizes the psychological and sociological basis of learning and behavior, a trusting view of students, and the confidence in students' abilities to be self-disciplined and responsible (Willower, Eidell, & Hoy, 1967, 1973). Undergraduates with low levels of teaching efficacy tend to take a pessimistic view of students, rely on strict classroom regulations, extrinsic rewards, and punishment to make students achieve. Once undergraduates start student teaching, those with higher levels of personal teaching efficacy were rated more positively on classroom management, teaching strategies, and question supervising teachers' evaluation of field experiences.

Several research endeavors have created more interest in teacher efficacy development in teacher candidates because teacher efficacy beliefs seem somewhat resistant to change as reported by Bandura (1986) and Woolfolk Hoy (2000). Evidence reveals that coursework and field experiences have different effects on personal teaching and general teaching efficacy. General teaching efficacy beliefs seem to increase during coursework, but decrease during student teaching (Hoy & Woolfolk, 1990; Spector,

1990). Student teaching provides opportunity for pre-service teachers to obtain information about their capabilities for teaching. This reality is thought to have a strong influence on the optimism many undergraduates have about teaching. However, student teachers often underestimate the complexity of teaching and their ability to handle the multitude of agendas that are a part of the teaching process (Woolfolk Hoy, 2000), becoming disappointed with the gap between the standards the student teachers set for themselves and their own performance.

The development of teacher efficacy among novice teacher has been the focus of few research studies. However, it seems that efficacy beliefs of first-year teachers are related to stress, commitment to teaching, satisfaction with support, and preparation. First year teachers with high teacher efficacy found satisfaction in teaching, had a more positive reaction to teaching, experienced less stress, and gave higher ratings to the support they had received from other school personnel (Woolfolk Hoy, 2000). Beginning teachers with high levels of teacher efficacy felt their teacher preparation was high quality and teaching was not as difficulty as reported by novice teachers with low teacher efficacy (Hall, Burley, Villeme, & Brockmeier, 1992).

Gado, Ferguson, and van't Hooft (2006) conducted another study of 21 pre-service teachers, examining their efficacy beliefs and conditions that affect pre-service teachers' attitudes and self-efficacy beliefs in the use of handheld computers. Use of handheld computers in science activities proved to enhance teachers' abilities. The level of enhancement depended on conditions that affected the integration of handheld technology. These conditions included classroom environment, teachers' technology

background, prior knowledge and experience, curriculum, and access to the handheld device. Quality teachers exhibiting high teacher efficacy apparently made the connection between their beliefs and their actions leading to performance changes. An additional study (Woolfolk & Hoy, 1990) reported that teachers' beliefs of personal efficacy affect their instructional activities and their orientation toward the educational process.

Teacher efficacy and diversity. Milner and Woolfolk Hoy (2002) completed a qualitative investigation to understand the sources of self-efficacy for African-American teachers in suburban high schools. The study identified and interpreted the sources of efficacy that caused the teachers in the study to persevere despite challenges encountered in an unsupportive environment. The researchers concluded that more qualitative research is needed to broaden the knowledge about teacher efficacy because present measures fail to capture some of the issues that diverse teachers encounter. Oh, Kim, and Leyva (2004) conducted a study on inner city teachers' sense of efficacy and their perceptions of minority and low socioeconomic students in three Los Angeles schools. Five efficacy measures of instructional practices, expectations, confidence level, external factors, and efficacy were used in the study. The findings indicated that the main source of high confidence for teachers was their positive teaching experiences with student learning.

Research examining the teacher efficacy of culturally diverse teachers has been growing in recent years. Sorrells, Schaller, and Yang (2004) conducted a study that examined the factors of a modified Teacher Efficacy Scale (Gibson & Dembo, 1984) with 123 African American and European American pre-service teachers enrolled at

historically Black colleges and universities (HBCU). The purpose of the study was to determine the differences between African American and European American participants' teacher efficacy and examine the relationships among participants' characteristics. This study indicated that three factors—ability, effort, and environment—lent support to the notion that teacher efficacy has an internal and external orientation as reported by Guskey and Passaro's (1994) observations. Several of the answers to items on the modified Teacher Efficacy Scale suggested that African American and European American pre-service teachers viewed themselves similarly on internal orientation. However, there were significant differences between the African American and the European American teachers on items reflecting the perceptions of their abilities to bring about change with students given external or environmental influences of students. Some researchers noted that the wording of items on the Gibson and Dembo instrument related to environmental factor may influence the responses of the diverse groups (Delpit, 1995; Ladson-Billings, 1994).

Teacher Efficacy in Special Education

Documentation of the characteristics of effective general education teaching programs is being used to analyze knowledge and practices of special education teacher training. Whether the conclusions about teacher efficacy can be successfully generalized to special education teachers and the achievement of students with disabilities is still unconfirmed. Carlson, Lee, and Westat (2004) surveyed 1,475 special education teachers across the nation and found that factors such as experience, credentials, professional activities, classroom practice, and self-efficacy could be viable components in the

assessment of teacher quality in special education. These studies support the need for increased opportunities for special education teachers to strengthen their levels of teacher efficacy beliefs in all educational settings.

Students with disabilities have unique behavioral and learning challenges that require special education teachers to possess significant expertise in pedagogy and attitudes of efficaciousness (Brownell et al., 2005). Brownell and her colleagues (2005) completed an exploratory study aimed at assessing and defining beginning teacher quality in special education. They reviewed various approaches to assess teacher quality and their potential use for understanding and assessing special education teacher quality. Using the resulting information, the researchers outlined a methodology that could be used to study teacher quality and improve future efforts to study teacher effectiveness in special education. Teacher efficacy beliefs were a common theme in the research conducted on teacher quality and teacher effectiveness in special education.

Other research studies contributing to the understanding of the teacher efficacy construct influence on various aspects of educating students in inclusive education environments have taken place in the last decade. For example, Paneque and Barbetta's (2006) survey of 202 elementary special education teachers examined teacher efficacy of special education teachers of English Language Learners (ELLs) with disabilities. The findings demonstrated a positive correlation between teacher efficacy and student language proficiency.

Preparation of special education teachers involves policies and program decisions that assist teachers in meeting the needs of students with disabilities in various school

settings. Therefore, more recent studies are focusing on teacher education program features that are needed to prepare highly qualified special education teachers with characteristics that are effective in educating students with and without disabilities.

Teacher Efficacy and Special Education Preservice Teachers

A study by Freytag (2001) hypothesized a significant difference between teacher efficacy scores and the number of pre-service courses on inclusion completed by special and general education teachers. Forty-eight general education and special education teachers participated in the study, completing a Teacher Efficacy Scale and providing demographic background information. Analysis of data indicated significant differences in personal efficacy scores and teaching efficacy scores when the teaching field was the main focus. Special education teachers scored higher than general education teachers on both personal teaching efficacy and general teaching efficacy. However, the number of inclusion classes taken in teacher training programs did not significantly affect teacher efficacy scores.

Gately and Hammer (2005) conducted an exploratory case study of secondary special education preservice teachers in order to plan teacher preparation experiences that met the special education needs in the general education classroom. The researchers paired general education teachers with preservice teachers and preservice methods faculty. The results of surveys and discussions of the participants revealed that the methods classes for the preservice special educators were not addressing critical issues of special educations; that knowledge of best practices for special education was not

adequately addressed; and preservice teachers as well as the method faculty needed to learn effective content, practices, curriculum design, and technology skills.

Empirical research has captured the importance of teacher efficacy as it relates to teacher behaviors and student outcomes in various contexts. Hall (2001) conducted a qualitative study that proposed a new curriculum design for the preparation of preservice special education teachers. The design sought to develop beliefs and stimulate the efficacy beliefs of the preservice teachers. Narratives generated by veteran special educators were used to be a springboard and guide discussions of how real teachers solve real problems. Several themes emerged from the narratives that supported Bandura's template for the sources of self-efficacy development. Results from the study presented knowledge and practices that supported the development of teachers' sense of efficacy beliefs.

Teacher Efficacy and Innovative Practices, Teacher Retention, and Teacher Burnout

In recent years, reports from multiple qualitative and quantitative studies have accumulated a wealth of information on special education teachers, especially in the area of teacher efficacy beliefs. Several studies have reported that teachers' beliefs about students, learning, curriculum, and teaching abilities influenced how they bridge their practices in particular areas to the needs of individual students with exceptionalities (Jordan, Kircaaali-Iftar, & Diamond, 1993; Pajares, 1992; Richardson & Placier, 2001; Stanovich & Jordan, 2002). In addition to student achievement, research has examined special education teachers' beliefs and their relationship to teacher retention, teacher burnout, and innovative practices.

Historically, surveys have been the main instrument for identifying variables associated with special education attrition (Brownell, Smith, McNellis, & Lenk 1994). But survey research does not reveal the contextual variables that affect teachers' decisions to stay in or leave the classroom. Teachers decide to leave special education classrooms for a variety of reasons and researchers have been unable to clearly determine why. Investigations of teacher retention and burnout have revealed that teachers' self-efficacy beliefs significantly correlate with implementations of practices that aid teachers in coping with stress and reducing their burnout levels.

Brownell et al. (1994) use qualitative interviews to explore variables related to attrition of 14 current and 10 former special education teachers. Resulting data showed that teachers who decided to stay in the profession were more committed to teaching children with disabilities, had higher sense of efficacy beliefs, felt their pre-service and initial teaching experience adequately prepared them for their career as teachers, and they exhibited more coping strategies. Teachers who decided to stay or leave became frustrated by different aspects of the education environment.

Another study conducted by Brownell, Smith, McNellis, and Miller (1997) investigated teacher attrition. Ninety-three randomly selected special education teachers in Florida were interviewed by phone on their reasons for leaving the classroom. The most cited reason for leaving the special education classroom was dissatisfaction with teaching conditions, along with feelings of being unsupported, unprepared, overwhelmed by student needs and job responsibilities, and teacher stress and burnout (Fore, Martin, & Bender, 2002).

In a study conducted by Brouwers and Tomic (2000), researchers' objectives were to identify the reasons for special education teachers leaving the classroom, to determine future occupations of the teachers, to make distinctions between disgruntled and non-disgruntled leavers, and to identify strategies for retention. Findings of the study indicated that stress, certification status, and frustrations with workload were strong predictors of teachers' decisions to leave the classroom.

In a later study, Evers, Brouwers, and Tomic (2002) examined the onset of burnout among 490 teachers who had recently implemented new innovative education strategies. The researchers used Bandura's (1977) self-efficacy theory to explain why some teachers who doubted their capabilities to implement new intervention strategies reported higher levels of burnout than teachers who considered their abilities to be quite sufficient. The study (Evers et al., 2002) identified three domains of competencies that are required for successful adoptions of new innovative practices. These determinants were teachers' self-efficacy beliefs for working with tasks, guiding groups of students with differentiated instructions, and coping with stress that accompanied the implementation of innovative educational practices.

Results of the study indicated that the self-efficacy beliefs for each of the three determinants were significantly and negatively related to the depersonalization and emotional exhaustion of burnout and positively related to personal accomplishments. The more negative the teachers' attitudes toward the new innovations, the higher the emotional exhaustion. Therefore, resulting data led the authors to conclude that teachers' efficacy beliefs are related to their burnout levels and that teachers with strong senses of

efficacy belief seem to be more prepared to experiment with and implement new educational practices, thus minimizing the exhaustion and burnout levels.

Cunningham (2003) used the Jerabek's Burnout Inventory to investigate burnout of teachers in first through fourth grade co-taught classrooms. Findings from this study revealed male teachers experienced slightly higher levels of burnout than female teachers, and teachers age 60 years and older experienced the highest level of burnout. Additionally, teachers with 0-10 years of experience and with the highest degree levels of education experienced high levels of teacher burnout, and special education teachers experienced a lower level of burnout than general educators teaching solo and the general educators in co-taught classrooms.

Grant (2006) investigated the role of special education teacher efficacy in teacher retention. With the shortage of special educators reaching critical limits, education professionals are searching for strategies to reduce the number of special educators who have left or are leaving the field. Grant's study examined the link among persistence, self-efficacy, and teacher turnover and posited some actions the education profession can take to prevent attrition of special education teachers. The researchers found that teachers' personal efficacy beliefs affected teachers' satisfaction with their jobs and also influenced students' academic achievement.

Inclusive Practices and Co-teaching

As the frequency of placing students who have disabilities with their peers without disabilities in the general education classroom increases, more teachers will be required to demonstrate effective inclusive practices. The Individuals with Disabilities

Education Improvement Act (IDEIA, 2004) states that students with disabilities be educated to the maximum extent appropriate with peers without disabilities. Federal legislation requires that when deciding the most appropriate, least restrictive environment for students with disabilities, the general education classroom with all necessary related services should be the first consideration. And while the federal law does not require the placement of all children with disabilities in the general education classroom, it presumes that setting is most appropriate unless documentation can demonstrate that another setting is required to better meet the students' needs (Kerzner-Lipsky, 2003).

Inclusive Practices

Inclusion is the term used to refer to the concept of integrating students with disabilities into the general education learning community. Inclusion is defined as the belief system shared by every member of a school as a learning community, often based on a mission statement or vision, emphasizing the commitment to educate all children so they can reach their potential (Friend, 2006). Although the term inclusion implies individuals with disabilities participating in the general education curriculum, it does not require students with disabilities to necessarily perform at levels comparable to their peers without disabilities. The goal of inclusion is that children with disabilities are educated in their neighborhood schools, in age appropriate general education classrooms in most, but not all, cases with supplementary aids and services provided (Shoho & Van-Reusen, 2000). Inclusive education environments are settings where diverse groups of learners feel welcomed, teach and learn from each other, and are actively engaged in a

supportive environment so that students (with and without disabilities) achieve at higher levels (Skoning, 2007).

In the past, efforts to integrate students with disabilities depended mainly on the willingness of certain teachers volunteering to allow students with special needs into their classrooms (Adams, 1993). Recent policies, though, require teachers to accept all students with disabilities and adjust the classroom, curriculum, instructional activities, and management techniques to meet each student's needs. This would be difficult without the collaboration of educators with a shared goal of promoting academic progress for students with and without disabilities.

Planning for students with learning and behavior problems makes collaboration with other teachers and professional agencies a crucial component of teaching that is effective in the instruction of students with disabilities in the general education classroom. Most general education teachers feel they are unprepared to be effective in inclusive education settings. They define themselves in terms of the grades and the subjects they teach. Their perception of special education teachers is from a different frame of reference separate from the rest of the school (Martinez, 2003; Trent, 1998).

Inclusion, however, requires general education teachers to be prepared to accept students with disabilities; adjust classroom curriculum; create practices to meet the academic, behavioral, and social needs of students with special needs; and collaborate with special education teachers. In other words, teachers in inclusive environments must develop an understanding of the knowledge, skills, and dispositions needed to meet the educational needs of students with disabilities. With more and more legislative and

ethical pressure for inclusive practices, professional roles and responsibilities are expanding. One of the options for the meaningful inclusion of students with disabilities is co-teaching, involving a general educator and a special education teacher. Co-teaching embraces the process of collaboration.

Collaboration and Co-teaching

Collaboration refers to the way in which professionals interact with each other and with parents or family members as they work together to educate students with disabilities (Friend & Cook, 2007). Co-teaching is a collaborative instructional approach where two teachers, one general education teacher and one special education teacher; a teacher and a related services professional; or a teacher and another specialist (Friend & Cook, 2007) working together to create curriculum and instruction that include accommodations and modifications for all students in the general education classroom (Gerber & Popp, 1999).

A number of co-teaching approaches have been identified by scholars (Friend & Cook, 2007; Sands, Kozleski, & French, 2000; Vaughn, Schumm, & Arguelles, 1997; Walther-Thomas, Korinek, McLaughlin, & Williams, 2000). These approaches include (a) one teach, one observe, (b) one teach, one assist, (c) station teaching, (d) parallel teaching, (e) alternative teaching, and (f) teaming (Friend, 2008). In addition to the various co-teaching approaches, Vaughn, Schumm, and Anguelles (1997) demonstrated that important components of effective co-teaching practices also should include ownership of students and their academic progress, classroom management, space, communication, and planning time.

Co-teaching is important because of No Child Left Behind Act (NCLB, 2001), which hold teachers responsible for all students' achievement (Wolfe & Hall, 2003). Significant changes must take place for inclusion and co-teaching to work (Fuchs & Fuchs, 1998). Teaching students with special needs in the general education classroom with their peers without disabilities is a multifaceted task requiring teaching teams learning to work together, performing relevant and meaningful instructions that promote learning (Kloo & Zigmond, 2008; Trent, 1998).

Lantner (2002) examined teachers' perception of personal efficacy, empowerment, and collaboration. Using case studies in a phenomenologic approach, Lantner investigated five teachers with a minimum of five years of teaching experience who were involved in collaborative education settings. She found that teacher efficacy was related to collaboration through shared resources and related to empowerment through the role of self-confidence. Goetz, Hunt, and Soto (2002) completed a 3-year federally funded project investigating the effectiveness of the collaborative teaming process on increasing academic achievement of students with augmentative and alternative (AAC) needs. Special education teachers teamed with general education teachers, instructional assistants, parents, and speech and language therapists to share their expertise in the development of effective instructional and support strategies. Project outcomes included the following:

1. increased sense of self-efficacy in inclusive settings by team members,
2. increased social and academic participation of the students with disabilities in general education classrooms, and

3. participant satisfaction with the process and the results.

These findings encouraged teachers to collaborate and develop new, creative strategies that promote learning. The study also found that collaboration may influence the development or increase of efficacy beliefs through verbal persuasion by the team members. Physiological states (another source of efficacy development) also could be recognized as collaboration with other team members lead to positive outcomes and feelings of accomplishment. Therefore, special education teachers, who have mastered a diverse collection of knowledge and skills that can benefit the field inclusive education, must share that information with the general education teacher (Mock & Kauffman, 2002).

Studies of Inclusive Practices and Co-Teaching

Co-taught classrooms differ significantly from school to school or district to district in definition and implementation (Hines, 2001). Current legislation (IDEIA, 2005; NCLB, 2001) supports the concept of inclusion for students with disabilities in the general education classroom. The impact of students with disabilities being educated in co-taught general education classrooms have been mixed over the past 25-30 years (Mastropieri et al., 2005). Some studies show inclusion and co-teaching benefit students with and without disabilities, while other findings reveal collaboration in inclusive education environments is so complex that it should not be accepted as an approach that is always appropriate (Boudah, Schumacher, & Deshler, 1997; Schumacher et al., 2002). Other investigations of the effectiveness of co-taught classrooms have reported less than desirable gains for students with learning disabilities (Mastropieri et al., 2006).

Zigmond et al. (1995) reported combined services (co-taught and pullout) were more effective with students with learning disabilities and other mild cognitive disabilities. Another study conducted by Magiera and Zigmond (2005) explored whether co-teaching instructional strategies enhanced achievement of middle school students with disabilities. Findings indicated that co-taught experiences did not enhance the academic achievement, student participation or student –teacher interactions. This study's results were replicated in two additional studies in secondary schools science and social studies classes (Zigmond, 2004, 2006). Kochhar, West, and Taymans (2000) also noted some barriers that may interfere with successful inclusion and co-taught classrooms. These barriers included a lack of preparation to work in co-taught classrooms; staffing of classes, as well as management of them; and the knowledge and attitudes of the education staff. Salend (2001) reported findings increased academic performance, but he noted some students in co-taught classrooms experienced feelings of isolation and frustration.

Boudah, Schumacher, and Deshler (1997) used single subject and group design to examine the effects of co-teaching on teacher performance, student engagement, and academic outcomes in inclusive education classrooms. The study involved eight classes including grades 6, 7, 8, and 10, with four experimental and four comparison classes. Each class comprised 32 students with relatively similar low achievement and students who were identified as learning disabled, behavioral disordered, mildly mentally retarded, or other health impaired. The general and special education teachers in each group were trained in one specific co-teaching approach: one teacher as a presenter with the other teacher assisting.

Results were mixed, demonstrating teachers spending more time mediating the learning of students but less time on actual content instruction. Results further indicated a low amount of engagement with the students in all inclusive classrooms involved in the study. Additionally, low levels of student achievement across all phases and groups in the study led the authors to conclude that special education programs that eliminate pull-out services may be harmful to students. However, Henson (2001) reported that teacher collaboration in inclusive classrooms was consistently related to high levels of general teaching efficacy. Collaboration also has been reported in the improvement of teaching behaviors and the development of solutions to educational problems (Talbert, McLaughlin, & Rowan, 1993). While Lantner (2003) reported that collaboration was influenced by teacher efficacy through the power of sharing resources, information, and ideas.

Other studies report successful outcomes of co-taught classrooms. Walther-Thomas, Bryant, and Land (1996) conducted a three year study in elementary co-taught classrooms. Results showed that students and teachers valued individual uniqueness, in addition to student academic progress, more appropriate social behaviors, and improved adaptations to learning and teaching styles. Despite the varying opinions of the benefits of inclusion and co-taught classrooms, the research findings indicate that the benefits from inclusion and co-taught classrooms across grade levels outweigh the difficulties that may arise surrounding this educational reform. Kochhar, West, and Taymans (2000) enumerated several of the benefits of inclusion/co-taught classrooms. First, co-taught classrooms facilitate more appropriate social behaviors for students with disabilities

because of higher expectations. Second, inclusion promotes levels of achievement that are as high, or higher, than self-contained or resource special education settings. Third, the co-taught classroom offers a wide range of support including peer support from students without disabilities. Fourth, co-taught classrooms improve the abilities of students and teachers to adapt to different teaching and learning styles.

As educators and scholars debate inclusive practices and co-taught classrooms, there is the acknowledgement that access to the physical inclusive setting does not mean opportunities for successful learning (Griffiths, 2007). Teacher sense of efficacy beliefs has been identified as one component influencing student learning and student behaviors in all education settings (Brownell & Pajares, 1999). Research and scholarly conversations on determining the components that contribute to successful inclusion and co-teaching have identified attitudes toward inclusion as another significant component. That is, teachers' attitudes toward inclusion have been found to contribute to the successful implementation of co-teaching in inclusive classrooms (Cook, Cameron, & Tankersley, 2007).

Teacher Attitudes toward Inclusion

Studies investigating the attitudes of teachers toward inclusion offer significant insights into the importance of this component in the successful integration of students with disabilities into the general classroom (Cook, 2001, 2004). In general, a positive attitude is expressed by teachers toward the concept of inclusion, but they express uncertainty about being adequately prepared to successfully implement inclusive practices (Scruggs & Mastropieri, 2000). Multiple studies support findings that teacher

attitudes toward specific students influenced the quantity and quality of interaction and support provided by teachers to students (Cook, 2001, 2004). Studies also show teachers' attitudes vary depending on the severity of the students' disabilities. For example, teachers may be more willing to accept students with mild to moderate disabilities over students with severe and profound disabilities (Rainforth, 2000). Many studies show less than positive teacher attitudes toward all students with disabilities regardless of the severity of their special needs and the educational policy of inclusion (Avramidis, Bayliss, & Burdon, 2000; Buell, Hallam, Gamel-McCormick, & Scheer, 1999; Cook, Cameron, & Tankersley, 2007).

Teachers entering inclusive education environments bring with them preconceived ideas and attitudes which affect how classes will be conducted (Cochran, 1997), what classroom management techniques will be implemented, and how all students will be involved in the classroom activities and procedures. The implication is that attitude toward the inclusion of students with disabilities in the general education curriculum is a reflection of persons with disabilities overall. Several studies have identified that the attitudes of teachers and administrators as impediments to the successful inclusion of students with disabilities in the general education classroom (Cook, 2001; Cook, Semmel, & Gerber, 1999; Cook, Tankersley, Cook, & Landrum, 2000; Praisner, 2003).

Cochran (1997) developed a psychometrically sound instrument to measure teachers' attitudes toward students with disabilities in inclusive classrooms. *The Scale of Teachers' Attitudes Toward Inclusive Classrooms* (Cochran, 1997, revised 2000)

examined the effects of teachers' attitudes on the performance of students with disabilities in inclusive classrooms. This instrument was also designed to be used to guide placement decisions for students with disabilities, screen teachers, shape teacher preparation programs, and prepare strategies that help remediate specific dimensions of teachers' attitudes and beliefs toward inclusive education for all students.

Conclusion

Co-teaching is a special education service-delivery model that can ensure that students with individual education programs (IEP) receive the support needed to be successful in the general education classroom (Kloo & Zigmond, 2008). Researchers have equated teacher effectiveness in co-taught classrooms with teachers' content knowledge and content, task-specific expertise. Teacher efficacy, a content, task-specific construct, has been linked to teacher performance and student outcomes (Bandura, 1997; Tschannen-Moran, Hoy, & Hoy, 1998). Teacher efficacy has proven to be a powerful construct in the educational process and strongly correlated to student achievement (Shahid & Thompson, 2001). Research-based evidence suggests that the development of the existing levels of teacher efficacy beliefs and teacher attitudes influence many variables of co-teaching practices in inclusive education environments (Hastings & Oakford, 2003).

The most difficult challenge to special education teacher definition and assessment is the diverse nature of special education. Special education teachers must play many roles including, but not limited to, providing direct instruction in general education, in resource rooms, and self-contained classrooms; providing instructions

across a wide range of students and academic subjects; and working collaboratively with general education teachers. Other challenges to defining and assessing special education teacher quality involve the standardized assessments of student learning; the variable nature of student performance; the population size of the students assigned to individual teachers; and finally, the small number of special education teachers usually available to study in a given school site.

Changes in the preparation and support of teachers of students with and without disabilities are necessary in addressing the challenges of present school reform initiatives, especially in those general education teachers and special education teacher working collaboratively in co-taught classrooms. Research of the teacher efficacy construct as it relates to inclusion has been minimal but meaningful in addressing the challenges of co-taught classrooms. Studies have found that general education teachers in inclusive education environments with strong efficacy beliefs will persevere more in creating accommodations for students with disabilities (Meijer & Foster, 1988; Soodak & Podell, 1996). Evidence indicates that teachers' sense of efficacy in instructional strategies partly determine how they structure academic activities in their classroom, evaluate student capabilities and abilities (Bandura, 1997), and develop effective classroom management (Allinder, 1994; Henson, 2001).

Teacher efficacy has functioned as an overall judgment of the capability of teachers to instruct, manage, and engage all students across various context, situations, and classroom settings. The items on the Teachers' Sense of Efficacy Scale (TSES) (Tschannen-Moran & Woolfolk Hoy, 2001) ask teachers to express confidence in their

judgments concerning instructional strategies, classroom management, student engagement, and the influence of external factors on student learning. The composite score of these judgments are compared with student achievement and the success of various teaching practices such as co-teaching. Pajares (1996b) argues that more efficacy studies are needed to assess the beliefs of teachers' perceptions toward the successful teaching of students with and without disabilities in co-taught classrooms.

This study focused on the factors considered on the TSES that are included in Bandura's teacher efficacy scale (1986), Gibson and Dembo's teacher efficacy scale (1984), and the scale developed by Tschannen-Moran and Woolfolk Hoy (2001). It also emphasized factors considered on the Scale on Teachers' Attitudes Toward Inclusive Classrooms (STATIC) by Cochran (1997, revised 2000). The study's intent was to investigate special education teachers' perceived sense of efficacy beliefs and attitudes as they relate to co-taught inclusive general education environments.

This study involved (a) examining the results of the TSES and the STATIC on a sample of elementary, middle, and high school special educators and comparing them with results reported by Tschannen-Moran and Woolfolk Hoy (2001) and Cochran (1997); (b) investigating predictors of teacher efficacy beliefs and attitudes toward inclusive classrooms in novice and experienced special education teachers in co-taught classrooms; and (c) analyzing the strength of the relationship between teacher efficacy beliefs and attitudes toward inclusive classrooms.

Strong sense of efficacy increases teacher accomplishment and attitudes toward inclusive environments (Bandura, 1997). Teachers with high confidence in their abilities

view difficult tasks as challenges to be accomplished not avoided (Bandura, 1994). Therefore the construct of teacher efficacy and attitudes toward co-taught classes must continue to be examined across education settings.

CHAPTER III

METHOD

Introduction

Teacher efficacy beliefs have been demonstrated to be related to meaningful outcomes in public schools and the academic success of students. Teacher efficacy is defined as a teacher's perception of his/her competence to promote learning in students with and without disabilities, even students with the most challenging needs (Brownell & Pajares, 1999); or the judgment of a teacher's capability to be successful in particular educational endeavors (Woolfolk & Hoy, 1990). This judgment has powerful influence in areas of student engagement, classroom management, and instructional strategies (Tschannen-Moran & Woolfolk Hoy, 2001). Studies of teachers' perceptions, beliefs, and attitudes involved in educating students with disabilities have shown significant differences between general education teachers and special education teachers (Trent, 1998; Rowe, 2000). Given that co-teaching has become a prominent instructional delivery strategy in the education of students with disabilities (Austin, 2001; Brownell & Pajares, 1999), efficacy beliefs and attitudes of special education teachers in co-taught classrooms merit additional investigation.

Few studies have examined the relationship of teacher efficacy beliefs and the attitudes of special education teachers involved in inclusive practices in co-taught classrooms. The purpose of this study was to investigate the levels of teacher efficacy

beliefs and attitudes toward inclusion of special education teachers involved in co-taught education classrooms in 10 North Carolina school districts. The study also focused on assessing the teacher efficacy beliefs and attitudes toward inclusion of special education teachers at all school levels (elementary school, middle school, high school), investigated predictors of teacher efficacy beliefs and attitudes toward inclusion, and examined whether any relationship exists between overall teacher efficacy and attitudes of special education teachers toward co-teaching or inclusion.

This study was conducted using a survey instrument comprised of three sections: (a) the Teacher Sense of Efficacy Scale (TSES), (b) the Scale of Teachers' Attitudes Toward Inclusive Classrooms (STATIC); and (c) demographic data section. This was a cross-sectional study, with data collection taking place between February, 2008 and June, 2008. The use of survey research in the form of a self-administered questionnaire was selected as the methodology for this study because of the rapid turnaround in data collection, the economy of the design, and the ability to identify sample variables from a widely dispersed population. An open-ended statement was included in the instrument to gather narrative information reflecting the views of the respondents and providing an added understanding of the obtained quantitative data (Creswell, 2003).

Participants

One hundred and twenty-three surveys were completed and returned by special education teachers who were fully licensed and currently employed in the public schools of the selected North Carolina district. The teachers co-taught in general education

classrooms for at least 60 minutes per day in elementary, middle, and high schools. The number of participants for each school level is presented in Table 1.

Table 1

Number of Special Education Teacher Respondents by Grade Level

Grade Level	Number	Percent
Kindergarten-5th Grade	46	37.41
6th -8th Grades	49	39.84
9th- 12th Grades	21	17.07
Other Kindergarten-8th Grades 6th -12th Grades	 5 2	 4.06 1.63
Total	123	100.00

Of the 123 respondents, female special education teachers (90.16%) outnumbered male special education teachers (9.84%). The majority of the participants self-identified themselves as White/non-Hispanic (74.38%), followed by Black/African American (23.97%), Hispanic/Latino (1%), and Native American (1%). Years of experience as a special education teacher ranged from one year to 31 years with an average of 10.8 years (SD=9.2) while experience in co-taught classrooms ranged from less than one year to 34 years with an average being 5.9 years (SD=6.1). The majority of special education teachers (51.22%) participating in this study had been teaching in co-taught classrooms for fewer than three years. Most of the participants held a bachelor's or master's degree (55.28% and 33.33%, respectively) as summarized in Table 2.

Table 2

Highest Degree Held by Participants

Highest Degree	Number	Percent
Provisional	8	6.50
Bachelors	68	55.28
Masters	41	33.33
Ed Specialist	2	1.63
Other	4	3.25

According to the National Center for Education Statistics (NCES, 2004-2005), the ratio of teachers in this study is similar to the national data for special education teachers with 84.9% females to 15.1% male. National demographic data also report that White/non-Hispanic special education teachers account for 86% of the nation's special educators, followed by Black/African American (11%). Other ethnicities accounted for a total of 3.6% of the United States employed special education teachers. National data of self-reported degrees held by the participants reported Bachelors (50%), Masters (40.9%), Education Specialists (6%), and Doctor of Philosophy (1.2%).

Instrumentation

In addition to demographic data, the survey contained the Teacher Sense of Efficacy Scale (TSES) and the Scale of Teachers' Attitudes Toward Inclusive Classrooms (STATIC). Participants were asked to respond to each of 24 items on the TSES using a 9-point scale and to the 20 items on the STATIC using a 6-point Likert-type rating scale.

Teachers' Sense of Efficacy Scale (TSES)

The Teachers' Sense of Efficacy Scale (see Appendix A) was piloted by Tschannen-Moran and Woolfolk Hoy (2001) using three studies with different samples in an effort to improve the items and validate the instrument. The final instrument consisted of 24 items loading on three identified factors-*efficacy for instructional strategies* (items 7, 10, 11, 17, 18, 20, 23, 24)*, efficacy for classroom management* (items 3, 5, 8, 13, 15, 16, 19, 21)*, and efficacy for student engagement* (1, 2, 4, 6, 9, 12, 14, 22). Using principal-axis factoring with varimax rotation, the 24 items loadings ranged from .50 to .78. Factor analysis identified eight items for each subscale. Construct reliabilities for the efficacy subscales were .91 for *instructional strategies*, .90 for *classroom management*, and .87 for *student engagement*. Intercorrelations among the three subscales were .60, .70, and .58 respectively ($p<0.001$). Means for the three subscales ranged from 6.71 to 7.27. It was determined that a total efficacy score could be calculated by conducting a principal-axis factor analysis specifying one factor. All factors loaded on the one factor, with loadings ranging from .49 to .76. With a reliability of .94 and mean score of 7.1 (SD=0.9), the TSES was felt to be a reliable instrument to assess efficacy.

The 24 items on the TSES are categorized into three subscales which represent a broad range of teaching tasks (Tschannen-Moran & Woolfolk Hoy, 2001). Individual items are rated using a 9-point scale ranging from 1-Nothing to 9-A Great Deal, with anchors at 3-Very Little, 5-Some Influence, and 7-Quite A Bit. The subscales identified included efficacy for (a) instructional strategies (example: *To what extent can you use a variety of assessment strategies?*), (b) efficacy for classroom management (example:

How much can you do to control disruptive behavior in the classroom?), and (c) efficacy for student engagement (example: *How much can you do to help your students think critically?*).

Tschannen-Moran and Woolfolk Hoy (2001) correlated the TSES with other teacher efficacy instruments including the RAND (Armor et al., 1976); the Teacher Efficacy Scale (TES) (Gibson & Dembo, 1984); the Responsibility for Student Achievement Questionnaire (Guskey, 1981); the Teacher Locus of Control Scale (Rose & Medway, 1981); the Webb scale (Ashton et al., 1982); and the Ashton vignettes (Ashton, Buhr, & Crocker, 1984). In an effort to determine efficacy in the context of special education, correlations of the TSES with an instrument developed by Coladarci and Breton (1997) were conducted. Data analyses determined the TSES was fairly valid and reliable for measuring the construct of teacher efficacy (Tschannen-Moran & Woolfolk Hoy, 2001).

Scale of Teachers' Attitudes Toward Inclusive Classrooms (STATIC)

The STATIC (Cochran, 1998) contains 20 items, each rated along a 6-point Likert type scale ranging from 0 (strongly disagree) to 5 (strongly agree). Two pilot studies were conducted in the development and validation of the STATIC (Cochran, 1998, revised 2000). Six items (3, 4, 7, 9, 13, 15) worded negatively are inversely scored. For instance, the item *I become easily frustrated when teaching students with special needs*, had a high negative value and was reverse coded during data entry and analyses. After the negatively worded items were reversed coded, the sum score of all twenty items were

totaled indicating an attitudinal index ranging from zero to 100. Higher scores indicated more positive attitudes and lower scores indicated more negative attitudes.

Four factors were identified for the STATIC: (a) advantages and disadvantages of inclusive education (7, 11, 12, 13, 14, 15, 20) (example: *I believe that children with special needs should be placed in special education classes*); (b) professional issues regarding inclusive education (1, 2, 3, 4 ,9) (example: *I am confident in my ability to teach children with special needs*); (c) philosophical issues regarding inclusive education (5, 6,10, 16) (example: *I believe that academic progress is possible in children with special needs*); and (d) logistical concerns of inclusive education (8, 17, 18, 19) (example: *I am comfortable teaching a child that is moderately physically disabled*). The complete instrument is included in Appendix A.

Previous studies on the STATIC consistently indicate a Cronbach alpha reliability coefficient of .89 for regular and special education teachers and an item-to-total correlations ranging from .26 to .70 with a mean score of .51 (SD= .11) and a standard error of measurement of +/-.04. Cronbach alpha reliability coefficients calculated for each of the four factors in previous studies yielded .87, .83, .57, and .62, respectively.

Context and Procedure

The survey consisted of two forms-A and B. The two forms contained the same three sections. Within Form A, the survey on efficacy beliefs (TSES) was presented first, while Form B presented the attitudes toward inclusion survey (STATIC) first. The section containing demographic questions and the open-response item comprised the

third section on both forms. The researcher randomly chose which school districts would receive Form A or Form B.

Thirty-four of North Carolina's 115 school districts were contacted via e-mails requesting permission to conduct the study. The 34 school districts were located across the eight public school regions of North Carolina. Ten of the 34 school districts granted the researcher permission to collect data. The 10 districts were located in the Northwestern (region 7), Central (region 3), Northeastern (region 1), and North Central (region 5) regions of the state (see Appendix E for additional geographic detail). The school districts were categorized using total student enrollment based on available enrollment data for the 2006-07 school year. Three were large school districts with more than 25,000 students enrolled; three were moderately-sized school districts with more than 10,000 but fewer than 25,000 students enrolled; and four were small school districts with fewer than 10,000 students enrolled. To insure anonymity of the school districts and participating special education teachers, letters of the alphabet were used to identify each district. Data for participating districts are summarized in Table 3.

After obtaining University of North Carolina-Greensboro Institutional Review Board (IRB) approval regarding informed consent for human subjects and school district IRB approval (see Appendix B), a formal letter outlining the research study was submitted to the individual school district's Exceptional Children (EC) Director (see sample letter in Appendix C). Also included was the IRB approval letter or permission statement from the individual school system. A March 31, 2008 deadline for the completion and return of the surveys was highlighted in the correspondence.

Table 3

Demographic Information of School Districts

School District	Total Student Enrollment	Total Exceptional Children[1] Population	Number Of Surveys Delivered	Number Of Surveys Returned	Percent Of Return
School District A	2,319	385	9	8	89%
School District B	2,985	444	9	5	56%
School District C	7,511	952	9/5*	4	44%
School District D	7,648	941	15	9	60%
School District E	14,438	2,942	24	16	67%
School District F	22,431	3,298	24	9	38%
School District G	22,597	3,095	24	13	54%
School District H	31,666	4,093	30	23	77%
School District I	50,708	7,371	30	18	60%
School District J	70,380	10,587	36/30*	18	50%
TOTAL	**232,683**	**34,108**	210/200*	123	**59%/62%**

*Indicate the number of surveys that were actually distributed.

Due to dilemmas regarding the timeline, the completion and return date for the surveys was extended. These dilemmas included the occurrence of several school and calendar holidays (Winter Break, Spring Break, Easter, and others) and scheduled school district meetings that interfered with the distribution of the survey packets to the participants.

An envelope containing the appropriate number of survey packets was mailed or delivered in February, 2008 to the Exceptional Children (EC) Director of each identified school district. A total of 210 packets were delivered; 200 of these were actually

[1] Exceptional Children is another term used to indentify children with disabilities.

distributed to special education teachers involved in co-taught education environments. Each survey packet included a letter of introduction from the researcher, including contact information, a survey booklet, four personally-designed postal stamps (co-teaching theme) as a token of appreciation for participation, a response card to participate in an drawing as an additional incentive to complete the survey, and a self- addressed, stamped legal sized return envelope. An example of the survey packet and other packet contents can be found in Appendix D. (All personal information was removed and the response card was destroyed after the drawing to protect participants and researcher.)

Instructions to each EC Director recommended that survey packets be distributed as equally as possible to elementary, middle, and high school special education teachers meeting the criteria of participating in a co-taught environment at least 60 minutes per day. The directors also were asked to ensure that the teachers represent as much as possible a cross section of years of experience teaching special education and years of experience teaching in inclusive environments (0-3, 4-10, over 10 years of experience). This cross section of years of teaching experience was selected by the researcher because the literature reports many teachers tend to leave the teaching profession before five years. Specifically, 20% of the teaching force left the teaching profession within four years (McCoy, 2003); 5.8% of special education teachers leave within the first three years or sooner (Billingsley, 2005). In North Carolina, one third of new general education teachers were reported to have left the profession by the end of their fifth year of teaching (McCoy, 2003). Any surveys not distributed were to be returned to the researcher in order to calculate an accurate return rate of the number of surveys completed and returned.

The EC director or a designated school administrator distributed the surveys to the identified special education teachers. Special education teachers also had the option of volunteering to participate in the study. All participation was at teachers' discretion. Each special education teacher completing the survey mailed it directly to the researcher, using the provided self-addressed, stamped legal-sized envelope. Participants were identified by numbers located in the right corner of each survey to ensure confidentiality. The identification number also was to be written across the sealed return envelope if mailed by anyone other than the participant. Those teachers who decided to participate in the incentive drawing returned a filled out card with the completed survey.

Participants were informed that all information they provided was kept strictly confidential. All completed cards for the drawing were separated from the surveys upon receipt and shredded after the drawing. Follow-up e-mails were utilized to communicate with the EC directors regarding any concerns, questions, or inquiries about the study or about surveys not returned by the deadline.

The researcher was available to collect surveys from school districts if necessary. Overall response rate was 59% with the researcher receiving 123 of the 210 surveys mailed to the school districts or 62% of the 200 surveys actually distributed to the participants.

Data Analysis

Data from the Teachers Sense of Efficacy Scale (TSES) and the Scale of Teachers' Attitudes Toward Inclusive Classrooms (STATIC) were analyzed using the SAS/BASIC® and SAS/STAT® statistical software, with an alpha level for statistical

tests set (p=<.05). Data were analyzed by the use of frequencies and percentages of categorical variables, means, and standard deviations for continuous variables. With regard to the TSES and STATIC, means and standard deviations were calculated for overall scores and subscale scores. Cronbach's alpha coefficients were computed for both scales. Pearson's correlation coefficients were used to examine relationships between the TSES and the STATIC and the subscales. The effect of school level on the two scales was explored using analyses of variance while the influence of selected factors on the scales was examined through the use of multiple regressions. Surveys with 15% or more of the items missing or unanswered were not used in the data analyses.

Content analysis, a form of qualitative analysis (Babbie, 2003), was conducted on the data obtained from the comments to an open-ended statement that was at the end of the survey. The statement respondents answered was this: *"Please provide any additional information you think might be helpful in understanding special education teachers and inclusive practices."* Coding of these responses began with the researcher. In an effort to establish inter-rater reliability, two other professional educators coded the same data separately (Creswell, 2003). Afterward, the researcher and the two educators came together to discuss memos generated and come to a consensus about the coded data. A 90% agreement was achieved related to inter-rater reliability. The process began by defining units within the data. From eighty-five written comments, 124 units emerged. Those units were further collapsed into 15 properties. Examples of properties were: qualities of good general education teachers in a co-taught classroom; staff

development—kinds and needs; and qualities of successful co-teaching between general education teachers and special education teachers.

From this analysis, the 15 properties were further collapsed into seven categories. Categories generated were staff development and training, qualities of a good general education teacher in co-taught classrooms; attitudes of general education teachers about special education teachers and inclusion; perceptions of special education teachers in co-taught classrooms; how special education teachers believe they are perceived; special education teachers' beliefs about inclusion; variables influencing co-taught classrooms and best practices; and obstacles to co-taught classrooms. These seven categories became four themes related to teacher efficacy and attitudes toward co-taught classrooms/co-teaching/inclusion. They were (a) perceptions, beliefs and attitudes of special education teachers about inclusion and co-teaching; (b) inclusion is a setting not appropriate for all students; (c) needs for successful inclusion and co-teaching; and (d) effective and ineffective co-taught classrooms—"How do I know it when I see it."

CHAPTER IV

RESULTS

Co-teaching and inclusive practices continue to be a frequently recommended instructional venue for the growing population of students with disabilities in general education settings. Understanding the philosophy of inclusion and co-teaching provides information that will help teachers, both the general education and the special education, share strategies that will promote student learning (Stanovich & Jordan, 2002). Education professionals report teachers who have more confident in their teaching ability are more likely to have positive attitudes toward inclusion and co-teaching (Larrivee & Cook, 1979; Soodak & Podell, 1996). Teacher's sense of efficacy has been related to teachers' behaviors and attitudes in the classroom (Allinder, 1994; Ashton & Webb, 1986; Colardarci, 1992; Gibson & Dembo, 1984; Glickman & Tamashiro, 1982; Guskey, 1981; Hall, Burley, Villeme, & Brockmeier, 1992; Meijer & Foster, 1988; Podell & Soodak, 1993; Stein & Wang, 1988) and student outcomes (Anderson, Greene, & Loewen, 1988; Armor et al., 1976; Ashton & Webb, 1986; Midgley, Feudlaufer, & Eccles, 1989).

The purpose of this study was to investigate the level of teacher efficacy beliefs and attitudes toward inclusion of special education teachers who co-taught at least one hour daily. School levels and several predictor variables were examined to determine the influence they had on teacher efficacy beliefs and teachers' attitudes toward inclusion. The Teacher Sense of Efficacy Scale (TSES), Scale of Teachers' Attitudes Toward

Inclusive Classrooms (STATIC), and demographic questions were used to answer the seven research questions that guided this study. Each research question and the analyses addressing it are presented below.

Research Questions and Findings

Research Question #1: Are the factor structures of previous research using the TSES and STATIC similar to the factor structures for the population of special education teachers in this study? With no basis for anticipating a difference, it was hypothesized that the factor structures found in this study would be the same as the factor structures found in previous studies for both the TSES and STATIC. The factor structures for both instruments were examined through principal components analyses with varimax rotation.

Using the responses of the special educators in this study, three factors for the TSES were retained using a minimum eigenvalue of 1.0. These three factors, each with eight items, accounted for 69% of the variance: Factor #1-*instructional strategies* (29%), Factor #2-*classroom management* (21%), and Factor #3-*student engagement* (19%). The eight items from the *instructional strategies* subscale loaded together on the first factor, along with two items from the *classroom management* subscale. The other six items of the *classroom management* subscale loaded together on the second factor. Seven of the eight items from the *student engagement* subscale loaded on the third factor while the final item from that subscale loaded on both Factor #1 and Factor #3. These results are similar to previous research using the TSES (Tschannen-Moran & Woolfolk Hoy, 2001). The factor loadings of each item on the TSES are included in Appendix F.

Using a minimum eigenvalue of 1.0, the principal components analysis on the STATIC retained six factors, accounting for 63% of the variance. The data analysis was re-run, forcing four factors to be more comparable to the four subscales of the original STATIC (Cochran, 1997, revised in 2000). The factors were Factor #1- *advantages and disadvantages*, Factor #2- *professional issues*, Factor #3- *philosophical issues*, and Factor #4- *logistical concerns*. This analysis accounted for 51% of the variance. Four of the seven items in *advantages and disadvantages* loaded on the first factor along with one item from *philosophical issues*. Three of the five items from *professional issues* loaded on the second factor accompanied by one item each from *philosophical issues* and *logistical concerns*. The third factor had items from three of the subscales, two from *advantages and disadvantages*, one from *professional issues*, and one from *philosophical issues*. Finally, one item from *philosophical issues* and two from *logistical concerns* loaded on the fourth factor. Two items, one from *advantages and disadvantages* and one from *logistical concerns*, did not load on any factor and one item from *professional issues* loaded on three different factors. Results of the factor analysis yielded low loadings indicating low or no meaningful relationship between the items for each of the four factors. Appendix G includes the factor loadings of items on the STATIC.

Research Question #2: How similar are the novice and experienced teachers of this study and previous studies based on the two instruments' descriptive statistics (mean, standard deviation, reliability, and standard error of measurement)? It was anticipated that the descriptive statistics for this study would be similar to descriptive statistics in original studies. Overall score and subscales scores were computed for the TSES scale. Means for

the three subscales ranged from 6.53 to 7.12 with an overall mean of 6.92 (SD=1.20). These means were similar but lower than the range of means (6.71 to 7.27) in the study conducted by Tschannen-Moran and Woolfolk Hoy (2001). Cronbach's alpha coefficients for the teacher efficacy subscales were .94 for *instructional strategies*, 0.94 for *classroom management*, and .90 for *student engagement*, comparable to the previous study which reported .91, .90, and .87, respectively. The data from this present research study also revealed overall standard error of measurement of .21. These results are summarized in Tables 4.1 and 4.2.

Table 4.1

Descriptive Statistics of Previous Studies Using TSES

Previous Study (24 Items)	**N**	**Mean**	**SD**	**Alpha**
TSES Overall Score	410	7.1	0.94	.94
Instructional Strategies Subscale	410	7.3	1.10	.91
Classroom Management Subscale	410	6.7	1.10	.90
Student Engagement Subscale	410	7.3	1.10	.87

Table 4.2

Descriptive Statistics of Present Study Using TSES

Present Study (24 Items)	**N**	**Mean**	**SD**	**Alpha**
TSES Overall Mean	121	6.92	1.20	.97
TSES Instructional Strategies Subscale	121	7.10	1.34	.94
TSES Classroom Management Subscale	121	7.12	1.31	.94
TSES Student Engagement Subscale	122	6.53	1.20	.90

NOTE: Number of cases varies due to missing data for all variables

The overall mean score on the STATIC was 79.6 (SD=9.73), which was higher than the overall total mean of 58.9 (SD=7.94) reported in previous studies (Cochran, 1997). The four subscales mean scores on the STATIC for the present study ranged from 3.8 to 4.3. It could not be determined if these scores and other descriptive statistics (standard deviations, and standard error of measurement) were higher or lower than those reported in previous studies because these data were missing from previous reports. Cronbach's alpha reliability coefficients were calculated: (a) .67 for advantages and disadvantages of inclusive education, (b) .67 for professional issues, (c) .37 for philosophical issues, and (d) .47 for logistical concerns. These reliability coefficients were lower than those reported by Cochran (1997, revised 2000), who obtained values of .87, .83, .57, and .62, respectively. The low reliability coefficients of the present study suggest that the items within the subscales are not cohesive as was indicated in the factor analysis. See Tables 5.1 and Table 5.2.

Table 5.1

Descriptive Statistics of Previous Studies Using STATIC

Previous Study (20 Items)	**N**	**Mean**	**SD**	**Alpha**
STATIC Overall Total Mean	481	58.91	7.94	.89
STATIC Advantages and Disadvantages Subscale		NA		.87
STATIC Professional Issues Subscale		NA		.83
STATIC Philosophical Issues Subscale		NA		.57
STATIC Logistical Concerns Subscale		NA		.62

NA=not available

Table 5.2

Descriptive Statistics of Present Study Using STATIC

Present Study (20 Items)	**N**	**Mean**	**SD**	**Alpha**
STATIC Overall Total Mean	120	79.57	9.73	.82
STATIC Advantages and Disadvantages Subscale	113	3.83	.64	.67
STATIC Professional Issues Subscale	121	4.04	.73	.67
STATIC Philosophical Issues Subscale	120	4.28	.52	.37
STATIC Logistical Concerns Subscale	118	3.88	.65	.47

Note: Number of cases varies due to missing data for all variables.

Research Question #3: Of the following predictor variables; number of years teaching special education, number of years teaching in inclusive environments, number of clock hours of professional development, and percent of students with disabilities participating in inclusive classrooms, what are the best predictors of overall score and the subscale scores teacher efficacy for special education teachers using the TSES instrument?

Examination of the distributions of predictor variables revealed non-normal distributions. Years of experience teaching special education was slightly skewed toward fewer years of experience. Years of experience in inclusive classrooms was very skewed, with half of the teachers having three years or fewer of experience. Likewise, the percent of special education students in co-taught classrooms was positively skewed toward the high end. Approximately half of the distributions indicated 100% of students with disabilities participated in inclusive classrooms. Finally, the number of clock hours of professional development also was highly skewed having almost half the distribution of

respondents reporting zero hours of professional development. The positively skewed distribution of the predictor variables had outliers that were extreme which could distort the interpretation of the data (see boxplots of distribution in Appendix H). Unlike the distributions of the predictor variables, the outcome variables appeared to have fairly normal distributions.

Results of Pearson correlation coefficients among the predictor variables suggested a strong relationship (r=.61) between years experience teaching special education and years experience teaching in inclusive classrooms. The other predictor variables were independent of each other with correlations ranging from .12 to .26 (see Table 6).

Table 6

Pearson Correlations among Predictor Variables

Variables	YRSEXP1	YRSEXP2	PCTINCLU	PROFDEV
Special Education Teachers (n=123)				
YRSEXP1 Years Experience Teaching Special Ed	1.00	.61	.18	.12
YRSEXP2 Years Experience Teaching Inclusive	____	1.00	.20	.26
PCTINCLU Percent Students in Inclusive Classrooms	____	____	1.00	.16
PROFDEV Clock Hours of Prof Dev in Inclusion	____	____	____	1.00

There were no relationship between the predictor variables and the outcome variables as indicated by the results of Pearson Correlations coefficients (see Table 7.1 and Table 7.2).

Table 7.1

Pearson Correlations Coefficients between Predictor Variables and Outcome Variables (TSES)

	Predictor Variables			
Outcome Variables (TSES)	YRSEXP1	YRSEXP2	PCTINCLU	PRODEV
	Special Education Teachers (N=123)			
TSES Overall Mean	.16	.26	.02	.28
Instructional Strategies	.24	.28	.02	.30
Classroom Management	.13	.28	.03	.25
Student Engagement	.05	.15	.02	.23

Table 7.2

Pearson Correlations Coefficients between Predictor Variables and Outcome Variables (STATIC)

	Predictor Variables			
Outcome Variables (STATIC)	YRSEXP1	YRSEXP2	PCTINCLU	PRODEV
	Special Education Teachers (N=123)			
STATIC Overall Mean	.24	.26	.19	.21
Advant. & Disadvant.	.12	.13	.17	.10
Professional Issues	.33	.32	.14	.22
Philosophical Issues	.12	.19	.07	.09
Logistical Concerns	.15	.18	.13	.27

A multiple linear regression was conducted for each of the four outcome variables, using the same four predictor variables. Three of the regression models were statistically significant: overall TSES mean (p= .01), instructional strategies (p=.001), and classroom management (p= .01). The fourth model, student engagement, was not a statistically significant model. Although the regression models were statistically significant, the r-square values were very low. The models had positive relationships but accounted for only 13%-17% of the variances (see Tables 8-10). Small sample sizes may have influenced the regression causing the estimates to be unstable and making it unlikely for the results to be replicated if the data was rerun. The outliers of the distribution could have biased results of the analysis by pulling the regression in a positive direction resulting in bias regression coefficients (Howell, 2002).

Among the predictor variables, clock hours of professional development in inclusive practices was the only significant predictor of the TSES overall mean score (p=.01) and the instructional strategies subscale (p=.01). Clock hours and years experience teaching in inclusive settings were both significant predictors of the classroom management subscale (p=.03and p=.02, respectively). In all cases, the significant predictors had a positive relationship to the outcome variables.

Table 8.1

Regression Analysis for TSES Overall Mean: Model Summary

Source	df	F	P	R2	Adjusted R-Square
Model	4	.89	.006	.131	.098

Table 8.2

Regression Analysis for TSES Overall Mean: Parameter Estimates

Variable	**B**	**SE**	***T***	***P***	b
Years Experience Teaching Special Education	.008	.015	.51	.61	.06
Years Teaching in Inclusive Classrooms	.037	.023	1.57	.12	.19
Percent of Students in Inclusive Classrooms	-.003	.004	-.80	.43	-.08
Clock Hours of Professional Development	.026	.009	2.58	.01	.25

Table 9.1

Regression Analysis for TSES Instructional Strategies Mean: Model Summary

Source	**df**	**F**	**P**	**R2**	**Adjusted R-Square**
Model	4	5.29	.0006	.1705	.1383

Table 9.2

Regression Analysis for TSES Instructional Strategies Mean: Parameter Estimates

Variable	**B**	**SE**	***T***	***P***	b
Years Experience Teaching Special Education	.03	.017	1.49	.14	.17
Years Teaching in Inclusive Classrooms	.03	.03	1.29	.20	.15
Percent of Students in Inclusive Classrooms	-.004	.004	-.90	.37	-.08
Clock Hours of Professional Development	.031	.011	2.82	.01	.26

Table 10.1

Regression Analysis for TSES Classroom Management: Model Summary

Source	df	F	P	R2	Adjusted R-Square
Model	4	3.96	.005	.133	.0996

Table 10.2

Regression Analysis for TSES Classroom Management: Parameter Estimates

Variable	B	SE	*T*	*P*	?
Years Experience Teaching Special Education	-.003	.02	-.17	.86	-.02
Years Teaching in Inclusive Classrooms	.060	.03	2.32	.02	.27
Percent of Students in Inclusive Classrooms	-.003	.004	-.70	.48	-.07
Clock Hours of Professional Development	.024	.011	2.16	.03	.21

Research Question # 4: Of the following variables, number of years teaching special education, number of years in inclusive environments, number of clock hours of professional development in a year, and percent of students with disabilities participating in inclusive classrooms, what are the best predictors of all of the STATIC and subscale scores for special education teachers involved in co-taught classrooms?

Distributions of and relationship among predictor variables were discussed under research question #3. The outcome variables, total STATIC and subscales (advantages and disadvantages; professional issues; philosophical issues; and logistical concerns), had normal distributions.

Five multiple regressions were conducted using the same four predictor variables described in the preceding section. Three of the five regression models were statistically

significant: overall STATIC mean (*p*=.011), professional issues (*p*=.003), and logistical concerns (*p*=.016). Two models of regression were not statistically significant: advantages and disadvantages and philosophical issues. Although the three regression models were statistically significant, the r-square values also were low (.11-.15). See explanation in the previous question. These data are summarized in Tables 11, 12, and 13.

Table 11.1

Regression Analysis for STATIC Overall Mean: Model Summary

Source	df	F	P	R2	Adjusted R-Square
Model	4	3.45	.011	.121	.086

Table 11.2

Regression Analysis for STATIC Overall Mean: Parameter Estimates

Variable	B	SE	*T*	*P*	?
Years Experience Teaching Special Education	.009	.006	1.49	.140	.177
Years Teaching in Inclusive Classrooms	.007	.009	0.73	.468	.089
Percent of Students in Inclusive Classrooms	.002	.002	1.16	.247	.112
Clock Hours of Professional Development	.006	.004	1.52	.131	.149

Table 12.1

Regression Analysis for STATIC Professional Issues: Model Summary

Source	df	F	P	R2	Adjusted R-Square
Model	4	4.32	.003	.146	.112

Table 12.2

Regression Analysis for STATIC Professional Issues: Parameter Estimates

Variable	**B**	**SE**	***T***	***P***	**?**
Years Experience Teaching Special Education	.019	.009	-.17	2.14	.247
Years Teaching in Inclusive Classrooms	.012	.014	2.32	0.85	.101
Percent of Students in Inclusive Classrooms	.001	.004	.002	0.23	.022
Clock Hours of Professional Development	.009	.011	.006	1.64	.158

Table 13.1

Regression Analysis for STATIC Logistical Concerns: Model Summary

Source	**df**	**F**	**P**	**R2**	**Adjusted R-Square**
Model	4	3.20	.016	.114	.079

Table 13.2

Regression Analysis for STATIC Logistical Concerns: Parameter Estimates

Variable	**B**	**SE**	***T***	***P***	**?**
Years Experience Teaching Special Education	.009	.008	1.04	.299	.125
Years Teaching in Inclusive Classrooms	.006	.013	0.46	.647	.057
Percent of Students in Inclusive Classrooms	.001	.002	0.66	.511	.064
Clock Hours of Professional Development	.013	.005	2.48	.015	.245

Research Question #5: Are there significant mean differences on the overall score of TSES for elementary, middle, high school special education teachers in co-taught classrooms? It was expected that the teacher efficacy mean scores for special education

teachers in co-taught classrooms would be significantly different among the three school levels.

Using a one way ANOVA, there was no statistically significant difference found on the overall score of the TSES by school levels among special education teachers completing the survey, F(2, 114)= 1.87, *p*=.16. Mean scores for the three school levels were not significantly different from each other (see Table 14).

Table 14

TSES Overall Mean Score by School Level

School Level (24 Items)	N	Mean	Standard Deviation
Elementary (K-5)	46	6.73	1.08
Middle (6-8)	48	7.16	1.00
High (9-12)	20	6.74	1.70

Research Question #6: Are there significant mean differences on overall score of the STATIC for special education teachers who co-taught at the elementary, middle, or high school levels? It was expected that the overall mean STATIC scores would be significantly different among the three school levels.

Using an analysis of variance, there was no statistically significant difference found on the overall score of the STATIC for school levels, F(2, 114) = .84, *p*= .43. Mean scores among the school levels were not significantly different (see Table 15).

Table 15

STATIC Overall Mean Score by School Level

School Level (20 Items)	N	Mean	Standard Deviation
Elementary (K-5)	45	3.89	.45
Middle (6-8)	49	4.02	.52
High (9-12)	20	3.99	.50

Research Question #7: Does the strength of the relationship between special education teachers' attitudes toward inclusion and overall sense of teacher efficacy change based on years of co-teaching in a general education classroom? It was expected that the strength of the relationship between overall sense of teacher efficacy and attitudes toward inclusion would increase as the years of experience in co-taught classrooms increased.

Examination of the strength of the relationship between special education teachers' overall sense of teacher efficacy and attitudes toward inclusion based on the number of years of co-teaching (0-3; 4-10; more than 10) in a general education classroom was conducted. Results of Pearson's correlation coefficients indicated a weak relationship between the TSES and the STATIC overall scores for the 38 special education teachers who had co-taught for 4-10 years in inclusive classrooms (r=.16). There was a stronger relationship between TSES and STATIC overall scores for the 61 special education teachers who co-taught for 0-3 years (r=.56) and for those (N= 19) with more than 10 years experience of teaching in inclusive co-taught classrooms (r= .64). These data are presented in Table 16.

Table 16

Correlations between TSES and STATIC Overall Score

Yrs. Experience in Inclusive Classrooms Number of special educators (N=118)	***n***	**Correlation Between TSES and STATIC**
0-3 years experience	61	.56
4-10 years experience	38	.16
> than 10 years experience	19	.65

Additional Qualitative Analyses

In addition to the items on the Teachers' Sense of Efficacy Scale (TSES), the Scale of Teachers' Attitudes Toward Inclusive Classrooms (STATIC), and demographic information, participants were asked to respond to the following open-ended statement: *Please provide any additional information you think might be helpful in understanding special education teachers and inclusive practice.* Content analysis was conducted on 85 responses to the aforementioned statement. From the analysis, four themes emerged. Those themes and examples of supporting data follow.

Theme #1: Perceptions, beliefs and attitudes of the special education teachers in co-taught classrooms.

Twenty-nine percent of the respondents' comments noted perceptions, beliefs, and attitudes about their presence in co-taught classrooms. Among descriptive statements recorded, teaching abilities for both the special education teacher and the general education teacher were noted: "flexibility" (comment #22), "ability to take on new roles with minimal planning time (comment #52); "open-minded about new implementation" (of inclusive classrooms) (comment #54); "have a good working relations (Respondent

#42); and "have ownership of the classroom" (comment #43). However, several respondents believed that their roles in co-taught classrooms were compromised and, in some cases, were disappointing, especially where the general education teacher's role is concerned. One special education teacher is tired of "students [who] treat me like a substitute teacher" (comment #55). On a similar note, comment #10 observed that

> Co-taught classrooms really do not exist in the same context as I learned in undergrad at _____ [name of her university]. Serving students in inclusion still means you are a 'glorified teacher assistant.' There is no collaborative meeting with general education teachers—they have no clue what REAL INCLUSION is.

As a response to the 'glorified teacher assistant' attitude, a respondent recommended that "regular education teachers need to recognize what special education teachers bring to the table and view them as equals, not assistants" (comment #74).

Some survey respondents observed that it is easier to teach in some classrooms than others. The ease of teaching in such settings is supported by attitudes of general education teachers. Respondent #11 stated

> As a special education teacher, it is easier to teach in some classrooms than others. Not all regular education teachers want children with disabilities or other adults in their classroom.

Sometimes such comments are made publicly and directly, as comment #23 noted:

> There are several general education teachers that dislike co-teaching and inclusion period. Once they discover a student has a disability their attitude changes. I often hear teachers refer to EC students as the 'inclusion child.' EC teachers are not valued or respected. This is worse when EC teachers do not know the content they are teaching . . . While we are in place to provide accommodations and

> modifications, the students still expect us to know the content. When we do not have the answers students lose respect for us.

Attitudes of general education teachers were consistently noted. Comment #6 believes "the achievement (academically and socially) for EC students depend on the attitude of the general education teacher." Another comment (#65) mentioned that "you have a few teachers who believe once they (students) are identified, they belong to 'EC' and they (the general education teachers) are not responsible for their education. Nonetheless, the success of co-teaching is "dependent on the acceptance and inclusion in instruction by the general education teacher" (comment #75).

Special education teachers are responsible for teaching both students and general education teachers. A respondent recognized her role as one who prepares the general education teacher for inclusion. She said, "I have to be prepared to get the general education teacher to understand the needs of the EC student and how to implement modifications so that the EC student can make process (comment #7). Furthermore, co-teaching can be "difficult" because "inclusion is a team effort and due to the territorial nature of teachers, they do not always know how to work as a team" (comment #28). Then again, another acknowledged that

> co-teaching can be an extremely effective method of meeting the needs of students with special needs, as long as the attitudes of both of the teachers are positive with regard to the co-teaching model. The special education teacher must share teaching responsibilities and not act as a teaching assistant. (Comment #59)

Theme #2: Beliefs that Inclusion is not for all students with disabilities.

Nineteen percent of the comments reported that they did not believe that inclusion was beneficial for all students with disabilities. While comment #72 agreed with the inclusive model, "it is not an absolute;" "it should not be a school-wide decision for every child." (comment #80). Along the same opinion, comment #83 noted "some students need a separate setting. One size does not fit all."

More specifically, placement stipulations were often noted. For example, one respondent felt inclusion is "great for [students with] mild to moderate [disabilities]. For moderate to severe, the EC classroom is often, though not always, the best setting" (#32). Though one comment (#67) believed "inclusion works best for high functioning students with disabilities, another one questioned the inclusive classroom for severely, profoundly multi-handicapped students who are non-verbal and non-ambulatory" (#78). Related to reading, another comment did not think

> it is fair to a student reading on a first grade level to be in an inclusive setting for reading at a fourth grade level. Inclusion is not for all students. I believe in meeting the individual needs of the students. If a child needs pull out services to be more successful and to learn then that is the way he or she needs to be served. Each of these questions depends on the individual student. (#62)

Additionally, the individuality of the case is important; however the least restrictive environment (LRE) should be honored. Comment #68 wrote that

> inclusion works <u>well</u> for some students. Every disabled child should have an opportunity to learn in their LRE, but their LRE should be determined case by case. It isn't feasible to think that every EC should receive pull out services or inclusion. Both should be offered.

Theme #3: Needs for successful inclusion and co-teaching

Seventeen percent of the 85 comments related to needs teachers must have to implement successful inclusion and co-teaching. Though only one comment (#84) desired smaller case loads, common planning time was cited by seven comments (#9, #12, #18, #23, #34, #44, and #74). Professional development for both special education general education teachers, and administrators was also mentioned. Three comments advocated for formal professional development and training through observations of good inclusive classrooms

> All teachers need training on working with special needs students in general education settings. Some EC teachers do not have enough knowledge in this method of providing instruction. (Comment #51)
>
> Inclusion professional development should be a requirement for all teachers, including specialists. (Comment #61)
>
> Our county only trains us (SET), yet principals and GET are not. Therefore it makes it hard to get them to understand the overall idea of inclusion. It may also help GET/principals to observe a good inclusive classroom in action.

Comment #61 relayed similar feelings when stating that "teachers who work together with inclusive practices for students would benefit from training so that both parties know ways to co-teach." On-going training for both general education and special education teachers was supported by comment #11.

On the other hand, comment #63 admonished school systems for their lack of training for staff and lack of staff in inclusive settings.

> I think many school systems and schools 'jump' into inclusion services without proper training for both special and general educators. The lack of staff often

> prevents 'inclusion' from meeting individual needs of EC students. I think you need to be selective when pairing general and special educators to teach in an inclusive classroom. It takes both teachers to make inclusion successful.

Given the lack of staff, comment #74 recognized, "central office needs to support inclusion and co-teaching by funding positions. Cutting special education teachers' positions does not help inclusive classrooms (comment #14).

Nonetheless, respondents revealed effective professional development they experienced or recommended. Comment #17 shared reading "several books, handouts, and speaking to other teachers about teaching in an inclusive classroom." Another respondent mentioned attendance at workshops on inclusion and self-initiated research conducted on the internet (#64). Comment #71 cited engagement with material on co-teaching/collaboration. A specific recommendation for professional development was noted by comment #74. S/he wrote, "Marilyn Friend's video and books should be required for all co-teaching teams."

Theme #4: Effective and Ineffective Co-taught Classrooms: "How do I know it when I see it?"

Of the comments provided by the special education teachers concerning co-taught classrooms, 19% expressed perceived characteristics of effective co-taught classrooms and 8% expressed characteristics of ineffective co-taught classrooms. Effective co-taught classrooms work best

> when both teachers have a common planning time. . . . Co-teaching/inclusion work best when the teachers have a good, rapport with each other and adequate planning and discussion time together. (Comment #12)

Co-taught classrooms also work best "when both teachers have EC backgrounds (comment #21). Such classrooms are quite dependent on collaboration of the general education teacher.

> The success of an inclusive classroom is largely dependent on the amount of collaboration put forth by the general education teacher. If a general education teacher is unwilling to modify lessons, practice co-teaching, and become familiar with students' individual learning needs then inclusion is likely to fail. Inclusion would be more successful if school level administrations allowed teachers to volunteer to teach inclusive classes. (Comment #28)

Along the same lines with volunteering to teach in inclusive classrooms, comment #33 believed that administrators should consider the "blend of personalities" of the teachers "to make this [inclusive classrooms] work." Furthermore, "it is critical for an EC teacher to have a certain confidence level to be successful. . . . The EC teacher must be confident enough to jump in and lead and assist in lessons (comment #34).

Other characteristics cited in effective co-taught classrooms included having a "sense of humor and patience" in helping to build relationships with students (comment #48); knowledge of individualization and "trust building" (comment #48); and "cohesive teacher management/instructional styles and willingness to adapt your personal style" (comment #54). Finally, the effectiveness of working together and respect for each other were recognized.

> The effectiveness of the general education and special education teachers and their ability to work together are critical factors in the success of the co-teaching experience. (Comment #56)

> You must be able to get along with the teachers you are working with. They must respect the role of the special education teacher and how the special students fit into the regular classroom. (Comment #58)

Ineffective co-taught classrooms were also described. Many responses were the direct opposites of those recorded above in the effective inclusive classroom section. However, a few different replies were recorded. For example, one comment (# 10) experienced a disconnection in what she was taught in undergraduate professional preparation and what she actually experienced in teaching. In other words, the actual teaching experience was not what she learned it should be (comment #10). When the general education teacher does not understand co-teaching, the inclusive classroom suffers (comment #14). Observations of teachers who "dumb down" the lesson instead of differentiating it, and "lack of knowledge the regular education classroom instructor has of students with disabilities" (comment #27) were cited as a demonstration of an ineffective co-taught classroom. Finally, the lack of knowledge/skills in core courses by the special education teacher, and in some cases the general education teacher, can contribute to the ineffectiveness of inclusive classrooms. Comment #46 expressed his challenge as related to reading comprehension.

> . . . However, what I see as the most challenging is my lack of experience as a teacher and lack of knowledge in the core courses. I realize that this will improve with time. In addition, I recognize that the biggest hindrance to students with learning disabilities that are placed in regular education classes is poor reading skills. Poor comprehension minimizes their success, increases frustration, and often goes unaddressed. When I have an opportunity to read and discuss material with students, their behaviors, performance and success improves, greatly. Regular education teachers, in some instances, appear oblivious to the lack of comprehension occurring in their classrooms.

A complete list of the comments provided by the special education teachers in co-taught classrooms is included in Appendix I.

CHAPTER V

DISCUSSION

Over the past thirty years, an accumulation of evidence has supported the relationship of teachers' efficacy (Tschannen-Moran & Hoy, 2002, 2007), their attitudes toward inclusive classrooms (Martinez, 2003), and their ability to influence student outcomes in schools. Empirical information found efficacy beliefs influenced the effort teachers put into teaching, their persistence during difficult situations, their willingness to try new strategies to better meet the needs of their students, their persistence in working with struggling students, their enthusiasm and commitment to the teaching profession, and their willingness to communicate and collaborate with peers (Allinder, 1994; Ashton & Webb, 1986; Berman et al., 1977; Coladarci, 1992; Gibson & Dembo, 1984). With the growing significance of teacher efficacy beliefs regarding instructional practices, classroom management, student outcomes, and inclusion, examination of this construct should be encouraged.

Psychometric instruments have been utilized as a means of assessing educators' knowledge, skills, teacher efficacy beliefs, and teachers' attitudes toward inclusion (Antonak & Livneh, 1988). Since a person's beliefs are intertwined with other concepts and operations of motivation, results of assessments have been varied. Nonetheless research over the past two to three decades have strengthened Bandura's claim that efficacy beliefs play an influential role in teacher motivation, academic progress,

collaborative endeavors, teacher persistence, and teachers' attitudes toward co-taught classrooms.

This study's aim was to contribute to the understanding of teacher efficacy and teachers' attitudes toward inclusive classrooms as determined by North Carolina special education teachers involved in co-taught general education classrooms. Results of this study were in many ways not anticipated, but the study did identify some variables that may influence special education teachers' efficacy beliefs and attitudes toward inclusion; highlight the influence of school levels on teachers' sense of efficacy and teachers' attitudes; and reveal how years of teaching experience in co-taught general education classrooms impact the relationship between teacher efficacy and attitudes toward inclusive classroom. These results may also influence the organization of teacher preparation coursework and field experiences for preservice teachers.

This study utilized the Teachers Sense of Efficacy Scale (TSES) (Tschannen-Moran & Woolfolk Hoy, 2001) and the Scale of Teachers' Attitudes Toward Inclusive Classrooms (STATIC) (Cochran, 1997; revised in 2000) to investigate the efficacy beliefs and attitudes toward inclusion of special education teachers who co-taught at least one hour daily in general education classrooms. Analysis of individual responses to items on the TSES and its subscales (*instructional strategies, classroom management, and student engagement*) showed most of the participants were confident about teaching in co-taught classrooms indicating ratings of 5 and above. For example, item #1 on the TSES, 31 participants chose 5/some influence; 35 participants chose 7/quite a bit; 18 chose 9/a great deal, representing 68% of the responses to this item.

On the STATIC and its subscales (*advantages and disadvantage, professional issues, philosophical issues, logistical concerns*) item analysis indicated most responses to the items were in a positive direction (4-tend to agree to 6-strongly agree). Items that were reverse coded (3, 4, 7, 9, 13, 15) reported ratings between 1-strongly disagree to 3-tend to disagree, showing positive responses to those items. For example: Item #4 *I become anxious when I learn that a student with disabilities will be in the general education classroom.* Thirty-nine participants chose strongly disagree and 54 participants chose disagree, accounting for 76% of the responding special education teachers. These responses showed special education teachers in co-taught classrooms had relatively good attitudes toward inclusion and related practices.

In an effort to determine how similar the novice and experience special education teachers in the present study were to groups in previous studies, question #1 examined and compared the factor structures of previous studies using the TSES and STATIC with the factor structures of the population of special educators in this study. As expected the factor structure for the TSES in both studies yielded similar results. However, the results of the previous studies using the STATIC did not mirror the results of the present study, indicating that the structure of the STATIC did not hold firm with the participants in this study. There was a lack of cohesiveness among the items in each subscale or low internal consistency of the instrument.

Question #2 looked at comparing the descriptive statistics reported from previous studies with the present study to determine if the statistics were similar for the two groups on the overall totals and subscales of the TSES and the STATIC. The resulting

information supported the researcher's expectation that the statistical data from previous studies would be similar to those this study. The means, standard deviations, and alpha scores from this study were very similar to those reported in the study conducted by Tschannen-Moran and Woolfolk Hoy (2001). The descriptive statistics for the STATIC (Cochran, 1997) included alpha scores (.62-.89), overall mean score (58.91), and standard deviation score (7.94) that were somewhat higher than those reported in this study (.37-.82; 79.57; 9.73 respectively). Statistical data also were computed for skewness. These scores, as well as, some of the STATIC subscale descriptive statistics were missing from previous studies making a comparison of the data from the two groups impossible.

Questions # 3 and # 4 investigated the variables that affect overall scores and subscale scores of the TSES and the STATIC. Question #3 examined which of four predictor variables (number of years teaching special education, number of years teaching in inclusive classrooms, percent of students with disabilities in inclusive classrooms, and number of clock hour of professional development in the past year) had the most impact on levels of teacher efficacy. Years of experience teaching in special education had no correlation to the TSES overall and subscale scores. These data are supported by findings of three quantitative studies (Cantrell, Young, & Moore, 2003; Plourde; 2002; Soodak & Podell, 1996) that found very little correlation between teaching experience and teacher efficacy.

This lack of correlation could be the result of the experiences not being connected to prior beliefs or experiences. Teachers' prior beliefs have a filtering effect on a person's thinking, information processing, and acquisition of new knowledge determining which

elements are accepted and integrated into a person's knowledge base (Bandura, 1986; Pajares, 1992). Subsequently, early and varied experiences for preservice and novice special education teachers have been reported to increase knowledge, skills, and sense of efficacy (Carlson, Brauen, Klein, Schroll, & Willig, 2002).

Number of clock hours of professional development had significant correlations with the TSES overall score (p= .001) and two of the subscale scores (instructional strategies (*p*= .001) and classroom management (*p*= .001). Findings of a study conducted by Deglau and O'Sullivan (2006) indicated that engaging in planned workshops contributed to teachers shifting their beliefs and attitudes. The study also revealed teachers felt a heightened sense of efficacy toward approaches to teaching following workshops. Pfaff (2000) provided additional evidence that teachers participating in ongoing professional development were more likely to gain and maintain a sense of security and confidence which positively influenced classroom practices. One respondent summarized this well by commenting, *"Inclusion would be more successful if school level administrators allowed teachers to volunteer to teach inclusive classes as well as provide ongoing training with both the GET and SET."* This comment and others like it suggest a need for school districts to provide more support, inservice training, and professional development on inclusion and co-teaching for not only the special education teachers (SET) but for general education teachers (GET) and administrative staff.

Question #4 also examined which predictors (number of years teaching special education, number of years teaching in inclusive classrooms, percent of students with disabilities in inclusive classrooms, and number of clock hour of professional

development in the past year) affected the STATIC overall score and its subscale scores. The only correlation that was statistically significant was years of experience teaching special education and the *professional issues* subscale score. Martinez (2004) cited teacher experience and teacher experience with students with disabilities as possible determining factors on positive outcomes for children with disabilities in inclusive classrooms. Another study by Oh, Ankers, Llamas, and Tomyoy (2005) found that teachers with 11-20 years of teaching experience were more optimistic toward negative events occurring in education. These authors speculated that after 10 years of teaching, teachers become mature in their careers and tend to embrace reforms more readily. However, teachers with more than 20 years of teaching experience appeared grounded in their beliefs and felt threatened by change.

Other educational research studies have examined the relationship of teacher efficacy with gender (Haydel, 1997), experience teaching (Ghaith & Yaghi, 1997), teacher certificate or degree (Hoy & Woolfolk, 1993), grade taught (Larsen, 1996; Soodak & Podell, 1996), classroom characteristics and student behaviors (Emmer & Hickman, 1991; Melby, 1995), and work with students with disabilities (Ross, Cousins, & Gadalla, 1996; Stanovich & Jordan, 1998). Further research should be considered for other variables that may be influential in the development or increase of special education teachers' efficacy beliefs and attitudes. Woolfolk and Hoy (1990) also suggest that since teacher efficacy is content and context specific, relationships between teacher efficacy and other variables should be specified or results may likely miss important relationships or findings important to this construct.

Research questions #5 and #6 examined data results to determine if there were significant mean differences on the TSES and STATIC overall scores for the various school levels (elementary, middle, and high schools). Although the researcher expected significant difference among the three school levels, data obtained from the study showed no statistical significant differences on the overall scores and the subscale scores of the TSES and the STATIC by school levels among the special education teachers participating in this study. Ghaith and Shaaban (1999) found in their study that grade level was not related to the perceptions of any teaching concerns. A different perception was provided by a participant in this study. *"Co-teaching models that are truly effective exist in the elementary setting and some in the middle school; however, I believe there are very few true, effective high school models".* This statement is supported in a study conducted by Tschannen-Moran and Woolfolk Hoy (2002) which stated middle and high school teachers felt less confident about their ability to provide appropriate instruction, manage student behaviors, and engage students in learning activities.

Additionally, the findings of the study by Tschannen-Moran and Woolfolk Hoy (2002) revealed noticeable differences between elementary special education teachers' sense of efficacy and their middle and high school colleagues. Elementary special education teachers were more confident in the capabilities to manage classroom behaviors effectively. The highest level of efficacy for elementary special educator was found in student engagement. However, as related to student engagement, along with subject matter, Marks (2000) found the teachers' overall sense of efficacy is generally consistent across school levels.

Research question #7 investigated the influence of years of teaching in co-taught general education classrooms on the strength of the relationship between teacher efficacy beliefs and attitudes toward inclusive classrooms. It was anticipated that the strength of the relationship between special education teachers' sense of efficacy beliefs and attitudes toward inclusive classrooms would increase with more experience teaching in co-taught classrooms. The data showed that the strength of the relationship was higher among special education teachers teaching for three years or less and those teachers teaching more than 10 years in inclusive settings.

Although a study by Paneque and Barbetta (2006) found no statistically significant difference in efficacy scores for number of years of teaching experience, an early study by Ross (1994) found that teacher efficacy beliefs and attitudes were influenced by instructions and experiences in the early years of teacher preparation with a gradual development of more positive attitudes continuing over a period of some years (Clough & Lindsay, 1991). Leroy and Simpson (1996) found that novice teachers who had received training in the area of inclusion had significantly more positive attitudes than teachers receiving no training. Novice teachers having support and regular supervision during their student teaching began their teaching careers with a high level of efficacy, positive attitudes, and a strong sense of teaching competence (Hoy, 2000). On the other hand, it seems that lack of support of colleagues and administration, the unexpected caseloads, and other school related responsibilities cause novice teachers to become dissatisfied, stressed, and less competent in their teaching capabilities (Hoy, 2000).

Novice teachers begin their teaching career exhibiting positive feelings toward the profession (Rice, 2003). This positive attitude and confidence increase with each year of classroom experience for the first four or five years. After which, the level of positive attitudes and efficacy drops, reemerging for teachers with more than 10 years of experience. Oh, Ankers, Llamas, and Tomyoy (2005) reported that teachers with more than 10 years experience of teaching were more optimistic toward negative events; they have matured in their careers and embrace change more readily. These teachers have experienced numerous systematic educational reforms and are more positive about changes. However, after 20 years of teaching experience, educators are more grounded in their beliefs and feel threatened by any changes. Hayes (2003) study found that having prior experience working with children with disabilities positively influenced teachers' efficacy beliefs and attitudes toward teaching students with special needs increasing the strength between the two concepts.

Though limited, the findings in this research show a relationship between sense of efficacy beliefs and attitudes toward inclusive practices. The variables affecting levels of efficacy and attitudes are more professional and philosophical, like professional development and years of experiences in co-taught classrooms. Number of students participating in co-taught classrooms appears to have no effect on special education teachers overall sense of efficacy and attitudes toward co-taught classrooms. But literature (Hayes, 2003) indicates that age of students with disability and type of disability are consistent factors influencing special education teachers' attitudes and

beliefs toward co-taught classrooms. Some of the participants in this research added support to this fact with comments such as these:

> (Inclusion of students with disabilities) depends on the type and severity of the disability.
>
> In my opinion inclusion works best for high functioning students with disabilities.
>
> My students are mildly handicapped and inclusion is very beneficial for them. However, we have severely, profoundly multi-handicapped students who are non-verbal and non-ambulatory. I do question the value of an inclusive class for them.

Conclusion

Values, attitudes, and efficacy beliefs of teachers, both general and special education teachers are fundamental to the academic and social success of students with disabilities in co-taught classrooms. These attributes also may affect the successful integration of students with disabilities into other school activities, environments, and the larger society (Hayes, 2005). Pajares (1996b) stated that teacher efficacy has proved to be powerfully related to many meaningful educational outcomes. And it has been determined that attitudes toward inclusion of students with disabilities in the regular classroom vary as a function of several variable (Scruggs & Mastropieri, 1996) such as teacher efficacy beliefs. Thus continued assessment of efficacy beliefs and attitudes toward inclusion for inservice as well as preservice teachers is warranted.

The instruments (especially the Teachers' Sense of Efficacy Scale, TSES) used in this study were simple to use with a large, diverse population yielding results that can be instrumental in future planning for effective reforms in co-teaching service delivery. But more in-depth studies are needed to provide information on the sources of attitudes and

efficacy development (modeling, mastery experiences, verbal persuasion, and physiological arousal) identified by Bandura (1986). The TSES and the STATIC proved to be somewhat reliable and valid scales for making statistical comparisons of special education teachers in co-taught educational environments. Because of the link between teacher efficacy and teachers' attitudes with teachers' behaviors and student outcomes, further examinations are needed that provide more in-depth insights that will facilitate obtaining information that will identify knowledge, practices, and behaviors related to teacher efficacy development in novice and experienced special education teachers. Longitudinal research which looks at variables or participants over a period of time should be considered to examine changes in teacher efficacy and attitudes toward inclusion.

One query of concern for the researcher was the lack of definite identifiers for the predictor variables (number of clock hours of professional development and percent of students in co-taught classrooms). Professional development opportunities come in many forms, including inservice training, participatory teacher research, coursework and professional conferences. Having specific form of professional development identified, could have minimized the skewness of the distribution the variable. Also, the percent of students in inclusive classrooms did not take into account the amount of time students spent in co-taught classrooms.

The distribution for this variable revealed outliers which may have influenced the outcome of the data analysis. How would the specific descriptions of these variables influence the participants' responses? Future inquiry should specifically target these two

predictor variables with a much larger sample or treat the variables as discreet variables with a broader distribution. Responses by the participants to the demographic portion of the survey suggest additional inquiry is merited. Contacting the participants was not possible due to the anonymity of the participants.

This study has made a contribution in determining the impact of several variables on levels of efficacy beliefs and teachers' attitudes toward inclusive classrooms, therefore adding to the literature on teachers' sense of efficacy and co-teaching in general education classrooms. Additionally, the findings of this study suggest that school level has very little impact on teacher efficacy and teachers' attitudes toward co-taught classrooms, despite the perceptions of the participants and some findings of recent studies. Nevertheless, special education teachers at all levels of schooling must be exposed to preservice or inservice training and professional development that increase their confidence, attitudes, and preparedness to organize and execute a course of action that promote academic and social progress for all students.

Teacher efficacy has been identified as an important but often overlooked construct in the teacher preparation design for general and special education preservice educators. Future investigations bridging or closing the gap between teachers' perceived sense of efficacy beliefs and attitudes toward inclusion with the reality of knowing how to teach a diverse population of students in the general education classroom are needed. With the continued increase of students with disabilities (an increase from 33% to 52% over the past 10 years), preparing more special education teachers with the knowledge

and pedagogy needed to meet the needs of those students should be a priority of education reform initiatives.

Wolfe and Hall (2003) said, “Let’s end the debate about whether to include students with (mild and moderate) severe disabilities in the general education classroom. Let’s focus on (the) how, when, and where” (p. 52). Tremendous amounts of moneys are spent on in-service training and professional development to provide the necessary knowledge, skills, and attitudes novice and experience special education teachers need to be successful in co-taught classrooms. These resources could be maximized in the teacher preparation and preservice training of future special educators. According to Bandura (1986) and Pajares (1992, 1996a), teacher efficacy is malleable and is likely to change especially during student teaching and the early years of teaching if teachers are engaged in meaningful professional development, have access to resources, and receive personnel and administrative support. Consequently, the resources would provide opportunities for educator, specifically special education teachers, to acquire the knowledge and experiences needed so they can emerge from their teacher preparation programs possessing the confidence in their capabilities to organize and execute a course of teaching actions in co-taught classrooms that promote learning for all students even the most challenging ones.

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Appendix A

Special Education Teacher Survey on Inclusive Practices

ID: _____

Special Education Teacher Survey

On Inclusive Practices

Survey Developed By
C. Smith
2007

SECTION 1

Instructions: This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate you opinion about each of the statements below. Your answers are confidential. ***Use the following scale to indicate your opinion about each statement. Circle the number to the right of each statement that best fits your opinion.***

1 = Nothing	**7 = Quite a bit**
3 = Very little	**9 = A great deal**
5 = Some influence	

		Nothing		Very Little		Some Influence		Quite A Bit		A great Deal
1.	How much can you do to get through to the most difficult students?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
2.	How much can you do to help your students think critically?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
3.	How much can you do to control disruptive behavior in the classroom?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
4.	How much can you do to motivate students who show low interest in school work?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
5.	To what extent can you make your expectations clear about student behavior?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
6.	How much can you do to get students to believe they can do well in school work?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
7.	How well can you respond to difficult questions from your students?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
8.	How well can you establish routines to keep activities running smoothly?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
9.	How much can you do to help your students value learning?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
10.	How much can you gauge student comprehension of what you have taught?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
11.	To what extent can you craft good questions for your students?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
12.	How much can you do to foster student creativity?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**

1 = Nothing	**7 = Quite a bit**
3 = Very little	**9 = A great deal**
5 = Some influence	

		Nothing		Very Little		Some Influence		Quite A Bit		A great Deal
13.	How much can you do to get children to follow classroom rules?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
14.	How much can you do to improve the understanding of a student who is failing?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
15.	How much can you do to calm a student who is disruptive or noisy?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
16.	How well can you establish a classroom management system with each group of students?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
17.	How much can you do to adjust your lessons to the proper level for individual students?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
18.	How much can you use a variety of assessment strategies?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
19.	How well can you keep a few problem students from ruining an entire lesson?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
20.	To what extent can you provide an alternative explanation or example when students are confused?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
21.	How well can you respond to defiant students?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
22.	How well can you assist families in helping their children do well in school?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
23.	How well can you implement alternative strategies in your classroom?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
24.	How well can you provide appropriate challenges for very capable students?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**

Comments:

SECTION 2

Instructions: A number of statements about teaching children with special needs are presented below. Read each statement and think about your general perception of the statement. ***Use the following scale to indicate your general perception about each statement. Circle the number to the right of each statement that best fits your general perception.***

1 = Strongly disagree (SD)	**4 = Not sure, but tend to agree (TA)**
2 = Disagree (D)	**5 = Agree (A)**
3 = Not sure, but tend to disagree (TD)	**6 = Strongly agree (SA)**

		SD	D	TD	TA	A	SA
1.	I am confident in my ability to teach children with special needs.	**1**	**2**	**3**	**4**	**5**	**6**
2.	I have adequately trained to meet the needs of children with disabilities.	**1**	**2**	**3**	**4**	**5**	**6**
3.	I become easily frustrated when teaching students with special needs in the general education classroom.	**1**	**2**	**3**	**4**	**5**	**6**
4.	I become anxious when I learn that a student with disabilities will be in the general education classroom.	**1**	**2**	**3**	**4**	**5**	**6**
5.	although students differ intellectually, physically, and psychologically, I believe that all children can learn in most environments.	**1**	**2**	**3**	**4**	**5**	**6**
6.	It is difficult for children with disabilities to make academic gains in the general education classroom.	**1**	**2**	**3**	**4**	**5**	**6**
7.	Students with disabilities should be included in the general education curriculum with their peers without disabilities.	**1**	**2**	**3**	**4**	**5**	**6**
8.	Students with disabilities in inclusive classrooms hinder the academic progress of the students without disabilities.	**1**	**2**	**3**	**4**	**5**	**6**
9.	I believe that academic progress in the general classroom is possible for children with special needs.	**1**	**2**	**3**	**4**	**5**	**6**
10.	I am comfortable teaching a child that is moderately physically disabled in the general classroom.	**1**	**2**	**3**	**4**	**5**	**6**
11.	I have problems teaching students with cognitive deficits in the general classroom.	**1**	**2**	**3**	**4**	**5**	**6**
12.	Students with special needs learn social skills that are modeled by general education students.	**1**	**2**	**3**	**4**	**5**	**6**

1 = Strongly disagree (SD)	**4 = Not sure, but tend to agree (TA)**
2 = Disagree (D)	**5 = Agree (A)**
3 = Not sure, but tend to disagree (TD)	**6 = Strongly agree (SA)**

		SD	D	TD	TA	A	SA
13.	Self-esteem of children with disabilities increases when included in the general education classroom.	**1**	**2**	**3**	**4**	**5**	**6**
14.	Students with disabilities have higher academic achievement when included in the general education classroom.	**1**	**2**	**3**	**4**	**5**	**6**
15.	Special inservice training in teaching children with special needs should be required for all general education teachers.	**1**	**2**	**3**	**4**	**5**	**6**
16.	I don't mind making special physical arrangements in the general education classroom to meet the needs of students with special needs.	**1**	**2**	**3**	**4**	**5**	**6**
17.	Adaptive materials and equipment are easily acquired for meeting the needs of students with disabilities.	**1**	**2**	**3**	**4**	**5**	**6**
18.	I can handle students with mild to moderate behavioral problems in the general classroom.	**1**	**2**	**3**	**4**	**5**	**6**
19.	My principal is supportive of the accommodations needed for teaching students with disabilities.	**1**	**2**	**3**	**4**	**5**	**6**
20.	I believe students with special needs should be educated in a special education classroom.	**1**	**2**	**3**	**4**	**5**	**6**

SECTION 3. DEMOGRAPHIC INFORMATION

1. Gender

_____ (1) Female
_____ (2) Male

2. Ethnicity

_____ (1) Black, African American
_____ (2) White, non-Hispanic American
_____ (3) Latino, Hispanic American
_____ (4) Native American
_____ (5) Asian, Pacific Islander
_____ (6) Other – please specify: _____

3. Years of experience teaching in special education

   _____ years

4. Years of experience teaching in inclusive education environments/co-teaching/collaboration

   _____ years

5. Are you currently teaching in an inclusive setting?

   _____ (1) Yes
   _____ (2) No

6. Grade level of students with disabilities that you teach: (check all that apply)

   _____ (1) Kindergarten-2nd grades
   _____ (2) 3rd-5th grades
   _____ (3) 6th-8th grades
   _____ (4) 9th-12th grades
   _____ (5) Other – please explain: _____

7. Percent of your students participating in inclusive classrooms daily:

   _____ %

8. Highest degree in special education:

   _____ (1) Provisioinal
   _____ (2) Bachelors Degree
   _____ (3) Masters Degree
   _____ (4) Educational Specialist Degree
   _____ (5) Doctorate

9. Approximately how many clock hours of professional development on inclusive practices have you accumulated in the past year?

   _____ clock hours

10. Did you take any courses during your teacher preparation education on inclusion, co-teaching, or collaboration?

    _____ (1) Yes
    _____ (2) No

    If yes, how many courses did you take? _____

    If no, how did you obtain knowledge and skills of inclusive practices? *Use the back page and be as specific as Possible*

11. Please provide us with any additional information you think might be helpful in understanding special education teachers and inclusive practices.

THANK YOU VERY MUCH FOR YOUR HELP WITH THIS SURVEY!!

ID: _____

Special Education Teacher Survey

On Inclusive Practices

Survey Developed By
C. Smith
2007

SECTION 1

Instructions: A number of statements about teaching children with special needs are presented below. Read each statement and think about your general perception of the statement. ***Use the following scale to indicate your general perception about each statement. Circle the number to the right of each statement that best fits your general perception.***

1 = Strongly disagree (SD)	**4 = Not sure, but tend to agree (TA)**
2 = Disagree (D)	**5 = Agree (A)**
3 = Not sure, but tend to disagree (TD)	**6 = Strongly agree (SA)**

		SD	D	TD	TA	A	SA
1.	I am confident in my ability to teach children with special needs.	**1**	**2**	**3**	**4**	**5**	**6**
2.	I have adequately trained to meet the needs of children with disabilities.	**1**	**2**	**3**	**4**	**5**	**6**
3.	I become easily frustrated when teaching students with special needs in the general education classroom.	**1**	**2**	**3**	**4**	**5**	**6**
4.	I become anxious when I learn that a student with disabilities will be in the general education classroom.	**1**	**2**	**3**	**4**	**5**	**6**
5.	although students differ intellectually, physically, and psychologically, I believe that all children can learn in most environments.	**1**	**2**	**3**	**4**	**5**	**6**
6.	It is difficult for children with disabilities to make academic gains in the general education classroom.	**1**	**2**	**3**	**4**	**5**	**6**
7.	Students with disabilities should be included in the general education curriculum with their peers without disabilities.	**1**	**2**	**3**	**4**	**5**	**6**
8.	Students with disabilities in inclusive classrooms hinder the academic progress of the students without disabilities.	**1**	**2**	**3**	**4**	**5**	**6**
9.	I believe that academic progress in the general classroom is possible for children with special needs.	**1**	**2**	**3**	**4**	**5**	**6**
10.	I am comfortable teaching a child that is moderately physically disabled in the general classroom.	**1**	**2**	**3**	**4**	**5**	**6**
11.	I have problems teaching students with cognitive deficits in the general classroom.	**1**	**2**	**3**	**4**	**5**	**6**

1 = Strongly disagree (SD)	**4 = Not sure, but tend to agree (TA)**
2 = Disagree (D)	**5 = Agree (A)**
3 = Not sure, but tend to disagree (TD)	**6 = Strongly agree (SA)**

		SD	D	TD	TA	A	SA
12.	Students with special needs learn social skills that are modeled by general education students.	**1**	**2**	**3**	**4**	**5**	**6**
13.	Self-esteem of children with disabilities increases when included in the general education classroom.	**1**	**2**	**3**	**4**	**5**	**6**
14.	Students with disabilities have higher academic achievement when included in the general education classroom.	**1**	**2**	**3**	**4**	**5**	**6**
15.	Special inservice training in teaching children with special needs should be required for all general education teachers.	**1**	**2**	**3**	**4**	**5**	**6**
16.	I don't mind making special physical arrangements in the general education classroom to meet the needs of students with special needs.	**1**	**2**	**3**	**4**	**5**	**6**
17.	Adaptive materials and equipment are easily acquired for meeting the needs of students with disabilities.	**1**	**2**	**3**	**4**	**5**	**6**
18.	I can handle students with mild to moderate behavioral problems in the general classroom.	**1**	**2**	**3**	**4**	**5**	**6**
19.	My principal is supportive of the accommodations needed for teaching students with disabilities.	**1**	**2**	**3**	**4**	**5**	**6**
20.	I believe students with special needs should be educated in a special education classroom.	**1**	**2**	**3**	**4**	**5**	**6**

Comments:

SECTION 2

Instructions: This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate you opinion about each of the statements below. Your answers are confidential. ***Use the following scale to indicate your opinion about each statement. Circle the number to the right of each statement that best fits your opinion.***

1 = Nothing	**7 = Quite a bit**
3 = Very little	**9 = A great deal**
5 = Some influence	

		Nothing		Very Little		Some Influence		Quite A Bit		A great Deal
1.	How much can you do to get through to the most difficult students?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
2.	How much can you do to help your students think critically?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
3.	How much can you do to control disruptive behavior in the classroom?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
4.	How much can you do to motivate students who show low interest in school work?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
5.	To what extent can you make your expectations clear about student behavior?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
6.	How much can you do to get students to believe they can do well in school work?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
7.	How well can you respond to difficult questions from your students?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
8.	How well can you establish routines to keep activities running smoothly?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
9.	How much can you do to help your students value learning?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
10.	How much can you gauge student comprehension of what you have taught?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
11.	To what extent can you craft good questions for your students?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
12.	How much can you do to foster student creativity?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
13.	How much can you do to get children to follow classroom rules?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
14.	How much can you do to improve the understanding of a student who is failing?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**

1 = Nothing	**7 = Quite a bit**
3 = Very little	**9 = A great deal**
5 = Some influence	

	Nothing		Very Little		Some Influence		Quite A Bit		A great Deal
15. How much can you do to calm a student who is disruptive or noisy?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
16. How well can you establish a classroom management system with each group of students?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
17. How much can you do to adjust your lessons to the proper level for individual students?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
18. How much can you use a variety of assessment strategies?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
19. How well can you keep a few problem students from ruining an entire lesson?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
20. To what extent can you provide an alternative explanation or example when students are confused?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
21. How well can you respond to defiant students?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
22. How well can you assist families in helping their children do well in school?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
23. How well can you implement alternative strategies in your classroom?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
24. How well can you provide appropriate challenges for very capable students?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**

SECTION 3. DEMOGRAPHIC INFORMATION

1. Gender

_____ (1) Female
_____ (2) Male

2. Ethnicity

_____ (1) Black, African American
_____ (2) White, non-Hispanic American
_____ (3) Latino, Hispanic American
_____ (4) Native American
_____ (5) Asian, Pacific Islander
_____ (6) Other – please specify: _____

3. Years of experience teaching in special education

   _____ years

4. Years of experience teaching in inclusive education environments/co-teaching/collaboration

   _____ years

5. Are you currently teaching in an inclusive setting?

   _____ (1) Yes
   _____ (2) No

6. Grade level of students with disabilities that you teach: (check all that apply)

   _____ (1) Kindergarten-2nd grades
   _____ (2) 3rd-5th grades
   _____ (3) 6th-8th grades
   _____ (4) 9th-12th grades
   _____ (5) Other – please explain: _____

7. Percent of your students participating in inclusive classrooms daily:

   _____ %

8. Highest degree in special education:

   _____ (1) Provisioinal
   _____ (2) Bachelors Degree
   _____ (3) Masters Degree
   _____ (4) Educational Specialist Degree
   _____ (5) Doctorate

9. Approximately how many clock hours of professional development on inclusive practices have you accumulated in the past year?

   _____ clock hours

10. Did you take any courses during your teacher preparation education on inclusion, co-teaching, or collaboration?

    _____ (1) Yes
    _____ (2) No

    If yes, how many courses did you take? _____

    If no, how did you obtain knowledge and skills of inclusive practices? *Use the back page and be as specific as Possible*

11. Please provide us with any additional information you think might be helpful in understanding special education teachers and inclusive practices.

THANK YOU VERY MUCH FOR YOUR HELP WITH THIS SURVEY!!

Appendix B

IRB Approval Letter

2/5/2008

THE UNIVERSITY OF NORTH CAROLINA

GREENSBORO

IRB File NUM:

078229

TITLE: Special Education Teachers' Sense of Efficacy Beliefs and Attitudes Toward Inclusion and Co-Taught Classrooms

RECEIVED
FEB 0 8 2008
ORC

PI: Friend,Marilyn **DEPT:** SES

Student Researcher : Smith,Cheryl

CO_PIS:

Action Taken:

eXempt from Full Review

✓ Expedited Review

Full IRB Review

Disposition of Application:

✓ Approved

Disapproved

MODIFICATIONS AND COMMENTS:

Janet L. Hutchins
IRB Chair/Designee

APPROVAL DATE*: 2/7/08

EXPIRATION DATE*: 2/6/09

*Approval of Research is for up to **ONE** year only. If your research extends beyond one year, the project must be reviewed before the expiration date prior to continuation.

N:\RSS\apps\uncg\DATA\ORC\2007_IRB_Facesheet.rpt

Appendix C

Letter to Exceptional Children Director

SAMPLE LETTER

EC Program Director
NAME County Schools
ANY CITY, NC

Dear EC DIRECTOR:

I am a doctoral student in the Department of Specialized Education Services at the University of North Carolina-Greensboro. I am in the process of collecting data for my dissertation research. My topic of interest is teacher efficacy and attitudes of special education teachers involved in inclusive practices. My proposed dissertation study will use a survey instrument to investigate the perceptions of special education teachers in North Carolina participating in instructional practices in the general education classroom at least 60 minutes a day.

I am seeking the participation of as many special education teachers (elementary, middle, high) from as many school districts as possible. The information obtained from the study will hopefully lead to a) better understanding of the perceptions of special educators involved in inclusion, b) the influence of these perceptions in the success of including students with disabilities and special needs in the general classroom, and c) ways this information maybe used in teacher preparation programs, induction programs, and professional development.

If you agree to have the special education teachers in your school district participate in the study, check the appropriate blank below and return this e-mail by December 18, 2007. Your immediate response is needed so that I may include the number of school districts that will be participating in the study in the Institutional Review Board (IRB) application. A formal letter, along with, my IRB application will be sent to you prior to beginning the survey. I anticipate beginning the study after January 20, 2008.

All questions or concerns about the survey or about participating in the study may be sent to me using the emails listed below. Or you may contact me by phone at 336-852-3717.

Sincerely,
Cheryl T. Smith
Cheryl T. Smith
Doctoral Student/Adjunct Instructor
Department of Specialized Education Services
University of North Carolina-Greensboro
gacherylsmith@hotmail.com or ctsmith2@uncg.edu

____x__My school district _____ County Schools WILL participate in the study.
(name of district)

_____My school district _____WILL NOT participate in the study.
(name of district)

SAMPLE LETTER

Dear Exceptional Children's Director:

Thanks to your school district for giving me permission to collect data from the special education teachers participating in co-taught classrooms. The purpose of the study is to investigate the teacher's overall sense of efficacy beliefs and attitudes toward co-teaching and inclusion. The data from the study will benefit education by informing teacher education and professional development initiatives that might benefit from knowledge of teachers' sense of efficacy beliefs to special educators and school districts who are interested in inclusive classrooms and co-teaching. I am asking that the surveys be distributed to special education teachers based on the following criteria:

- Participation of special educators in a co-taught classroom at least 60 minutes a day.
- A third of the surveys distributed at each setting-elementary, middle, or high school
- Half of the surveys distributed to novice special education teachers- 1-3 years teaching experience
- Half of the surveys distributed to veteran special education teachers- more than 5 years of teaching experience

The survey will take approximately 15-20 minutes of each special education teacher's time. As you can see from the attached letter to each special education teacher, I am asking that each teacher return the completed survey and if they choose to participate in a drawing, the drawing entry card. A stamped, self-addressed envelope is included in the packet.

Enclosed you will find a copy of my Institutional Review Board (IRB) approval to conduct this research and packets containing the survey booklet, letter of introduction to each teacher, an official drawing entry card, and a stamped, self-addressed envelope. I would appreciate the survey packets be distributed as soon as possible and returned no later than March 31, 2008. Results of the study will be available after completion of the dissertation.

Thank you for assisting me in my dissertation research. I deeply appreciate your time and that of the participating special education teachers. I hope the results of this study can make a difference in better preparing special educators of the future.

Sincerely,

Cheryl T. Smith
Doctoral Student
Department of Specialized Education Services
University of North Carolina-Greensboro
Phone #- 336-852-3717
ctsmith2@uncg.edu

Appendix D

Survey Packet

SAMPLE LETTER

Dear Special Education Teacher:

I am a doctoral student in special education at the University of North Carolina at Greensboro. As part of the requirements for my degree, I am conducting dissertation research focusing on the perceptions of special education teachers toward co-taught classrooms involving children with disabilities receiving instruction in the general education classroom with their peers without disabilities. Under the supervision of my advisor, Dr. Marilyn Friend, I am collecting data through the enclosed survey of special education teachers involved in co-taught classrooms at least 60 minutes a day. The purpose of the research is to analyze the overall teachers' sense of efficacy beliefs and provide feedback that benefit teacher education programs with information that will guide them in developing courses and field experiences that influence the development of a strong sense of efficacy beliefs. School districts may choose to use the resulting information from the study to create professional development sessions that benefit special educators and school districts who are interested in co-teaching.

Your school district has given me permission to collect data using special education teachers participating in co-taught classrooms and I am requesting that you participate in this study. (I have enclosed that letter in your packet). The survey contains three sections: section #1 contains 24 items, section #2 contains 20 items, and section #3 asks for demographic information. The survey will take approximately 15-20 minutes of your time. After completing the survey, please place it in the stamped, self-addressed envelope, seal it, write the identification number across the seal, and mail it back to me. I am asking that survey packets be completed and returned to me by March 31, 2008. Your return of the survey will constitute your consent to participate in the study. Please retain a copy of this letter for your file for future reference.

Your participation is completely voluntary. You may withdraw from the research study without penalty. Your individual responses will be kept confidential and participants will remain anonymous. Your participation in this research study will make a significant contribution to the understanding of special education teachers' overall sense of teacher efficacy beliefs and attitudes toward co-taught classrooms. All data will be stored in a locked file at the home of the student researcher for at least three years for the sole purpose of reviewing data to answer unexpected questions pertaining to the study. After that time, all data will be destroyed by shredding all surveys. There is some risk that the participants' responses may be revealed and could cause adverse workplace outcomes. However, any information that identifies any participant will be kept to a minimal.

The UNCG Institutional Review Board has approved this research. Any questions regarding participants' rights in the study can be answered by calling Mr. Eric Allen at (336) 256-1482. Questions regarding the research study will be answered by the student researcher, Cheryl T. Smith at the contact information given below.

Thank you in advance for your participation in this study. If you would like to participate in an educational drawing for $100 first prize or one of four additional prizes- CO-TEACH handbooks, please complete the enclosed official entry card and return it with your survey. Entry cards will be shredded prior to data analysis and after the completion of the drawing.

Sincerely,

Cheryl T. Smith
Doctoral Student
Department of Specialized Education Services
University of North Carolina-Greensboro
Phone# 336-852-3717
ctsmith2@uncg.edu

Education Drawing Card

SPECIAL EDUCATION TEACHER
SURVEY DRAWING
OFFICIAL ENTRY CARD
$100-1ST PRIZE; 3 ADDITIONAL PRIZES-CO-TEACHING MANUALS

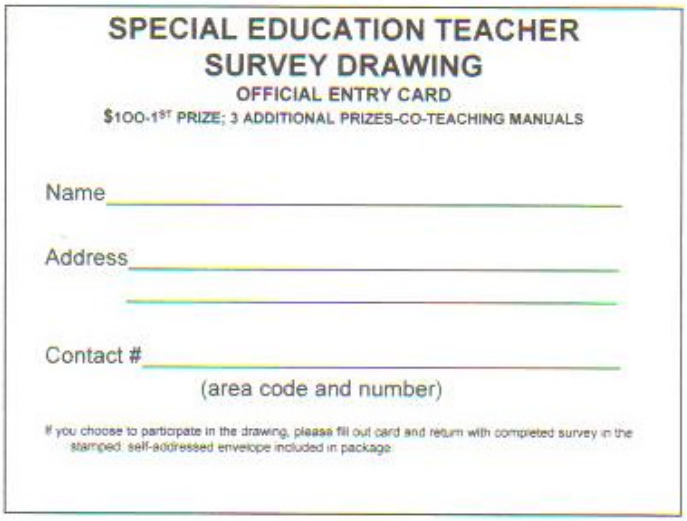
Name_____

Address_____

_____

Contact #_____
(area code and number)

If you choose to participate in the drawing, please fill out card and return with completed survey in the stamped, self-addressed envelope included in package



SPECIAL EDUCATION TEACHER
SURVEY DRAWING
OFFICIAL ENTRY CARD
$100-1ST PRIZE; 3 ADDITIONAL PRIZES-CO-TEACHING MANUALS

Name_____

Address_____

_____

Contact #_____
(area code and number)

If you choose to participate in the drawing, please fill out card and return with completed survey in the stamped, self-addressed envelope included in package

Copy of Appreciation Stamps

Appendix E

Map of North Carolina Education Regions

Eight Education Regions

Appendix F

TSES Factor Loadings

Teachers' Sense of Efficacy Scale (TSES)
Factor Analysis: Principal Components Analysis With Varimax Rotation
N = 117

Author's Subscale	Item	Factor #1	Factor #2	Factor #3
Instructional Strategies	#7 How well can you respond to difficult questions from your students?	0.57	0.29	0.32
	#10 How much can you gauge student comprehension of what you have taught?	0.72	0.28	0.26
	#11 To what extent can you craft good questions for your students?	0.74	0.12	0.29
	#17 How much can you do to adjust your lessons to the proper level for individual students?	0.66	0.46	.028
	#18 How much can you use a variety of assessment strategies?	0.68	0.37	0.31
	#20 To what extent can you provide an alternative explanation or example when students are confused?	0.77	0.30	0.17
	#23 How well can you implement alternative strategies in your classroom?	0.74	0.34	0.39
	#24 How well can you provide appropriate challenges for very capable students?	0.80	0.27	0.27
Classroom Management	#3 How much can you do to control disruptive behavior in the classroom?	0.17	0.75	0.30
	#5 To what extent can you make your expectations clear about student behavior?	0.63	0.59	0.22
	#8 How well can you establish routines to keep activities running smoothly?	0.70	0.46	0.08
	#13 How much can you do to get children to follow classroom rules?	0.40	0.71	0.29
	#15 How much can you do to calm a student who is disruptive or noisy?	0.29	0.70	0.30
	#16 How well can you establish a classroom management system with each group of students?	0.56	0.62	0.17
	#19 How well can you keep a few problem students from ruining an entire lesson?	0.40	0.69	0.34
	#21 How well can you respond to defiant students?	0.38	0.70	0.33

Author's Subscale	Item	Factor #1	Factor #2	Factor #3
Student Engagement	#1 How much can you do to get through to the most difficult students?	0.05	0.25	0.78
	#2 How much can you do to help your students think critically?	0.34	0.14	0.72
	#4 How much can you do to motivate students who show low interest in school work?	0.18	0.44	0.68
	#6 How much can you do to get students to believe they can do well in school work?	0.31	0.43	0.53
	#9 How much can you do to help your students value learning?	0.30	0.28	0.65
	#12 How much can you do to foster student creativity?	0.50	0.22	0.50
	#14 How much can you do to improve the understanding of a student who is failing?	0.49	0.35	0.60
	#22 How well can you assist families in helping their children do well in school?	0.55	0.16	0.60

Appendix G

STATIC Factor Loadings

Scale of Teachers' Attitudes Toward Inclusive Classrooms (STATIC)
Factor Analysis: Principal Components Analysis With Varimax Rotation
N = 111

Author's Subscale	Item	Factor #1	Factor #2	Factor #3	Factor #4
Advantages & Disadvantages	#7 I believe students with special needs should be educated in a special education classroom.	0.18	0.08	0.29	-0.04
	#11 Students with special needs learn social skills that are modeled by general education students.	0.78	0.16	-0.03	-0.05
	#12 Students with disabilities have higher academic achievement when included in the general education classroom.	0.72	0.15	0.16	0.20
	#13 It is difficult for children with disabilities to make academic gains in the general education classroom.	-0.02	0.02	0.68	-0.01
	#14 Self-esteem of children with disabilities increases when included in the general education classroom.	0.84	0.06	0.06	0.06
	#15 Students with disabilities in inclusive classrooms hinder the academic progress of the students without disabilities.	0.26	0.03	0.58	0.11
	#20 Students with disabilities should be included in the general education curriculum with their peers without disabilities.	0.68	0.14	0.14	0.04
Professional Issues	#1 I am confident in my ability to teach children with special needs.	0.08	0.74	0.02	0.17
	#2 I have been adequately trained to meet the needs of children with disabilities.	0.19	0.71	0.03	0.21
	#3 I become easily frustrated when teaching students with special needs in the general education classroom.	0.07	0.59	0.10	-0.29
	#4 I become anxious when I learn that a student with disabilities will be in the general education classroom.	0.21	0.31	0.58	-0.18
	#9 I have problems teaching students with cognitive deficits in the general education classroom.	0.43	0.47	0.40	-0.01

Author's Subscale	Item	Factor #1	Factor #2	Factor #3	Factor #4
Philosophical Issues	#5 Although students differ intellectually, physically, and psychologically, I believe that all children can learn in most environments.	-0.11	0.21	0.53	0.19
	#6 I believe that academic progress in the general classroom is possible for children with special needs.	0.62	-0.02	0.48	0.23
	#10 I can handle students with mild to moderate behavioral problems in the general classroom.	0.29	0.62	0.06	0.23
	#16 Special inservice training in teaching children with special needs should be required for all general education teachers.	0.01	-0.14	0.00	0.77
Logistical Concerns	#8 I am comfortable teaching a child that is moderately physically disabled in the general classroom.	0.15	0.30	0.20	0.64
	#17 I don't mind making special physical arrangements in the general education classroom to meet the needs of students with special needs.	0.16	0.39	-0.08	0.60
	#18 Adaptive materials and equipment are easily acquired for meeting the needs of students with disabilities.	0.06	0.33	0.13	0.04
	#19 My principal is supportive of the accommodations needed for teaching students with disabilities.	-0.05	0.73	0.22	-0.04

Appendix H

Boxplots of Distributions of Demographic Data

The SAS System

Special Education Teacher Survey on Inclusive Practices
Demographic Information: Selected Variables
Basic Stats and Plots

The UNIVARIATE Procedure
Variable: YRSEXP1 (Years Experience Teaching Special Ed)

```
Stem Leaf                             #        Boxplot
  30 000000                           6           |
  28 0000000                          7           |
  26 00                               2           |
  24 0000                             4           |
  22 0                                1           |
  20 00000                            5           |
  18 0000                             4           |
  16 000000                           6        +-----+
  14 00                               2        |     |
  12 0000                             4        |     |
  10 0000000                          7        |  +  |
   8 0000000000000                   13        |     |
   6 000000000000000                 15        *-----*
   4 00000000000000                  14        |     |
   2 000000000000000000000000000     26        +-----+
   0 0000000                          7           |
     ----+----+----+----+----+-
```

The SAS System

Special Education Teacher Survey on Inclusive Practices
Demographic Information: Selected Variables
Basic Stats and Plots

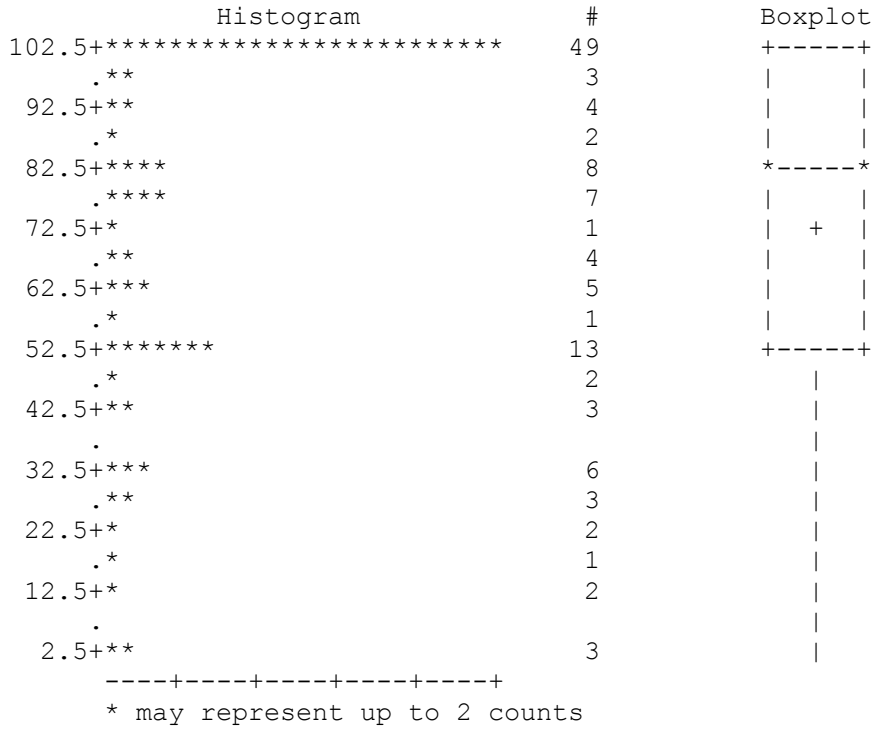
The UNIVARIATE Procedure
Variable: YRSEXP2 (Years Experience Teaching Inclusive)

```
Stem Leaf                                                  #        Boxplot
  34 0                                                     1           *
  32
  30 0                                                     1           *
  28 0                                                     1           *
  26
  24
  22
  20 00                                                    2           0
  18 0                                                     1           0
  16 0                                                     1           |
  14 000000                                                6           |
  12 000000                                                6           |
  10 00000000                                              8           |
   8 000000                                                6        +-----+
   6 0000000000000000                                     16        |     |
   4 00000000000000                                       11        |  +  |
   2 00000000000000000000000000000000000000000000000000  40        *-----*
   0 0000000000000000000000                               23           |
     ----+----+----+----+----+----+----+----+
```

The SAS System

Special Education Teacher Survey on Inclusive Practices
Demographic Information: Selected Variables
Basic Stats and Plots

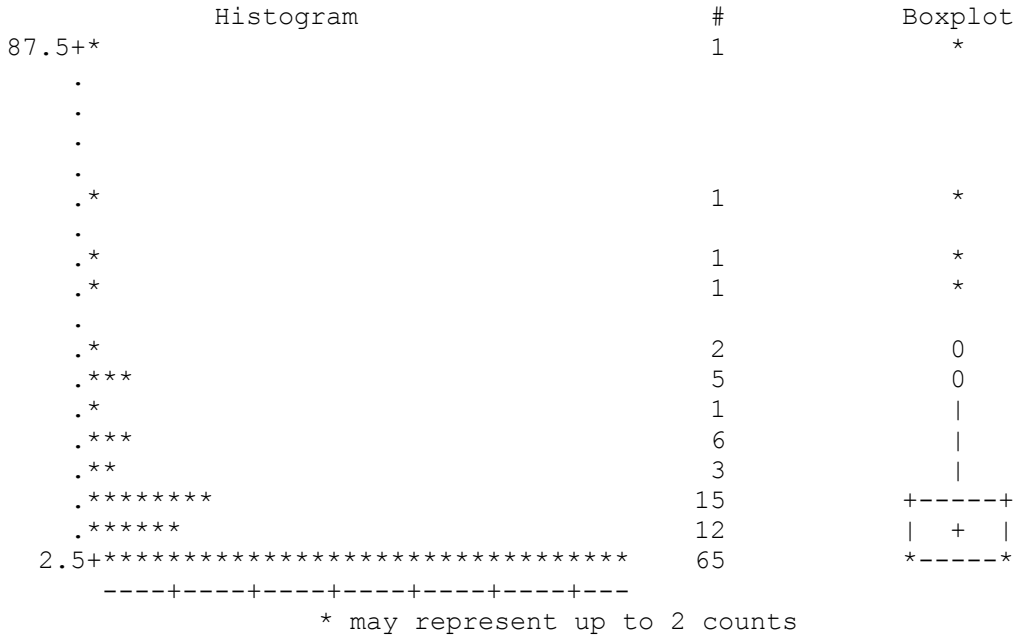
The UNIVARIATE Procedure
Variable: PCTINCLU (Percent Students in Inclusive Classrooms)



The SAS System

Special Education Teacher Survey on Inclusive Practices
Demographic Information: Selected Variables
Basic Stats and Plots

The UNIVARIATE Procedure
Variable: PROFDEV (Clock Hours of Prof Dev in Inclusion)



Appendix I

Teachers' Comments

Comments to Question #11 on the Survey

- I teach with a very open-minded RET which is why I believe I enjoy "co-teaching". We share the class, switching between teaching and supporting every week. The students do not really think of us as RET and SET. I think that is the key. That is the problem in many inclusive rooms-the SET becomes an assistant or only works with the EC kids.
- Have access to curriculum; depends on safety issues-we practice the non-violent crisis intervention model
- Staff development has focused on using intervention research-based practices. Our staff has ½ day planning for vertical planning curriculum mapping-these practices benefit all.
- jump & swim
- If the RET is willing to work with the SET there is a better success rate. If not EC students fail. Training not offered in my school district at the present time
- The achievement (academically and socially) for EC students depend on the attitude of the RET.
- I have to be prepared to help the RET understand the needs of the EC students and how to implement modifications so that the student can make progress—anxious feelings.
- With EMD, LD, AU from impoverished households of the parents/guardians receiving government assistance-many do not hold jobs. It is extremely difficult

to instill the importance of an education to students who see their parents receive money and do not work.

- Attitude of administration is vital. I initiated inclusion with several peers (co-workers). We had common planning
- Co-taught classrooms really do not exist in the same context as I learned in undergrad at UNCG. Serving students in inclusion still means you are a "glorified teacher assistant". There is no collaborative meeting with RET—they have no clue what REAL INCLUSION is. Most don't even tell students who you are. I have had to introduce myself to students and tell them why I am in their classroom. Yes, it is easier this way because I do not have to plan in advance, but I want to be responsible for success in the classes I visit daily. I think RET should be required to take training for inclusion and co-teaching.
- As a SET, it is easier to teach in some classrooms than others. Not all regular education teachers want children with disabilities or other adults in their classroom.
- Co-teaching works best when both teachers have a common planning time. Co-teaching takes more of a teachers' time. RET that co-teach typically attend more IEP meetings than those who do not. Co-teaching/inclusion work best when the teachers have a good, rapport with each other and adequate planning and discussion time together.
- We provide a curriculum assistance class to all EC students. This class is designed to provide a liaison between the RET and SET and the regular classroom's

assignments, test preps, recopy notes, test accommodations. Skills taught include organization skills, test taking , and note taking.

- I believe in inclusion. I believe that it greatly benefits the social skills of students with disabilities. However, in order for inclusion to work, school districts must provide more support and training. Inclusion can only work if there are enough special education teachers and assistants. In my county, they cut 15 special education assistant positions and our students have suffered.
- Our county only trains us (SET), yet principals and RET are not. Therefore it makes it hard to get them to understand the overall idea of inclusion. I t may also help RET/principals to observe a good inclusive classroom in action.
- I believe EC students need inclusion and some direct instruction is often needed in reading and /or math.
- I have read several books, handouts, and talked to other teachers about teaching in an inclusive classroom.
- Answers based on past experiences in other schools. Currently, there are not enough EC teachers to have co-teaching work effectively. We have approximately 114 EC students and 5 EC teachers. Each EC teacher go into regular classrooms (mostly English and Math) 1-2x a week for about 20-30 minutes. My schedule is as follows: 1st-OCC English; 2nd- Curriculum Assistance; 3rd- Planning/Inclusion for 7 classes/3 students come for additional instruction; 4th-curriculum assistance. We try our best with what we have in our school program.

- I am a strong believer in meeting the needs of all students whether disabled, at-risk for other reasons, or the high achiever. However, I have a big problem with students decoding at a 2nd grade level and comprehending no higher than the 4th grade sitting in a regular education 9th/10th grade class expecting to master the material. I do believe the material can be modified and strategies can be applied whereas that student can learn, but I have yet to see that student master an EOC even with read aloud accommodations. That student's self-esteem goes way down; they become frustrated and imitate the inappropriate behavior of the general population.
- Co-teaching models that are truly effective exist in the elementary setting and some in the middle school; however, I believe there are very few true, effective high school models. If the needs of the students were met as they should be and tracked effectively over a 6 year period, exceptional students at the high school level would be far less than 10% of the school's population. I guess that is true of at-risk total population as well. There are ways to do it, but few to achieve and meet the needed manpower to be successful. I'm an older adult who stayed home and raised her own children before trying to tackle the challenges of inspiring others to learn.
- Co-taught classrooms work best when both teachers have EC backgrounds.
- Teaching in an inclusive setting requires flexibility and give up some ownership of their personal classroom and space. I personally do not think that inclusion is for all students.

- Co-teaching when the RET doesn't understand co-teaching is difficult. There are several RETs that dislike co-teaching and inclusion period. Once they discover a student has a disability their attitude changes. I often hear teachers refer to EC students as the "inclusion child." EC teachers are not valued or respected. This is worse when EC teacher do not know the content they are teaching. For example when you have a social studies resource teacher co-teaching inclusion English or Math. This is difficult! While we are in place to provide accommodations and modifications, the students still expect us to know the content. When we do not have the answers students lose respect for us. And as much as planning together sounds great it is not enough when the content is foreign. (Sorry about my spelling, I teach math).
- Inclusion classrooms have been very helpful in including regular education students with special education students. It allows two teachers to help all students and place students in the least restrictive environment. (?)
- Practice
- I believe in inclusion model for students that are close to grade level. It is also good for students as a motivation. Some special education students need both services to meet their needs (inclusion and pullout). It really is on an individual needs basis.
- The biggest difficulty I experience is the idea that differentiating class lessons are in some way "dumbing it down". The next problem is the lack of knowledge the regular education classroom instructor has of students with disabilities. I am

worried that as the ratio of EC teachers:students grows that these students will have a decreased amount of advocacy for them at the school level.

- The success of an inclusive classroom is largely dependent on the amount of collaboration put forth by the RET. If a RET is unwilling to modify lessons, practice co-teaching, and become familiar with students' individual learning needs then inclusion is likely to fail. Inclusion would be more successful if school level administrations allowed teachers to volunteer to teach inclusive classes as well as provide on-going training with both RET and SET. Inclusion is a team effort and due to the territorial nature of teachers, they do not always know how to work as a team.
- I find that the teacher is the best person in the class to model appropriate social skills. Some children can be cruel to others who are "differently" perceived.
- This depends on the type of disability the student has. Some special needs students can best have their needs met in the special education classroom.
- Some general education teachers are more experienced in co-teaching, refusing to treat SETs as assistants. They plan, collaborate with and actually co-teach with the SET. I have worked with both types of teachers and the more experienced classrooms as much easier in which to teach.
- for mild to moderate inclusion is great. For moderate to severe, the EC classroom is often though not always the best setting.

- The blend of personalities is essential to make this work. Mutual respect, great communication skills, and a willingness to accept another voice in the classroom make or break the team.
- It is critical for an EC teacher to have a certain confidence level to be successful and not fall into the "glorified assistant" role when co-teaching in a general education classroom. When an EC teacher falls into the role of an assistant, I feel that 1) the general education teacher resents the minimal support with active teaching, 2) the EC teacher may feel under used and insulted, 3) the students don't receive the maximum benefit of having 2 certified teachers in the room. The EC teacher must be confident enough to jump in and lead and assist in lessons. They may initially cause a few awkward moments and transitions. However, with good planning, thoughtful discussions, experience the moments fade away.
- I strongly believe in inclusive settings for most students with disabilities, however, there are some students that need and do better in a separate setting.
- In most cases classroom routines work well, but you always have one student that this environment does not work and you get very little to nothing done for students.
- I teach in a Reading First School. I use what they give me and don't leave me much choice.
- When parents come to meetings, I feel good that I can provide appropriate strategies. When parents don't come or don't return letters and phone calls, I would say #1 (answer).

- All (answers) of these depend on the individual student's needs.
- Depends on the situation.
- You are lumping a wide range of abilities together when you say "students with special needs". Depending on needs answers may change somewhat.
- Co-teachers need to have a good working relationship.
- Both teachers need to have ownership of the classroom.
- Co-teaching does not work in every academic setting. Co-teaching needs to be agreed upon by the SET and the RET. It should not be a forced situation. The regular teacher and the special educator need to do a lot of planning together.
- Because of minimal planning opportunities and minimal content knowledge in high school core requirements it is difficult to impact learning by instructing. I believe I impact more by modifying lessons, refocusing, reteaching, and reading to students in small groups or individually.
- I am 45 and made a career change upon graduating from college in 2006 with a BA in sociology. I applied for a teaching position in special education because I wanted to be an OCS teacher. I believe my work experience in supervision and management would be an asset when helping students prepare for the world of work. I was offered an EC resource position that required I be an inclusion teacher. I accepted. I began 6/07 school year as an inclusive teacher. I also began the Lateral Entry/MAT program for special education K-12@ Salem College. I am learning about everything from special education, teaching to co-teaching and co-planning during my coursework at Salem. However, what I see as the most

challenging is my lack of experience as a teacher a lack of knowledge in the core courses. I realize that this will improve with time. In addition, I recognize that the biggest hinderance to students with learning disabilities that are placed in regular education classes is poor reading skills. Poor comprehension minimizes their success, increases frustration and often goes unaddressed. When I have an opportunity to read and discuss material with students, their behaviors, performance and success improves, greatly. Regular education teachers, in some instances, appear oblivious to the lack of comprehension occurring in their classrooms. However, in all fairness to teachers, the demands of the NCLB place unrealistic demands on the performance expectations of children with learning disabilities. If discrepancies are used to place students, then why are they not used when it comes to EOC's. A 15 point discrepancy on EOC would often times provide our students with level 3 or 4 scores.

- I teach students with mild/moderate mental retardation. They are mainstreamed for social purposes. I haven't seen much benefit other than that I feel they are missing instruction appropriate for these functioning level in those classes (primarily science and social studies).
- I have found success in working with all students when I try to individualize for all (especially the identified EC students) I have worked with teachers who share my philosophy. Recognizing strengths and weaknesses among students and making modifications along with consistent parental communication insure much

success for all! A sense of humor and patience help build relationships among students as well! I enjoy my job because I love these kids!

- I had been an assistant for three years before receiving my license. The most difficult situation to overcome was past bad inclusion experiences of the regular classroom teachers. Trust building was difficult at first. As the year progresses, the sharing of tasks has become easier.
- Inclusion teachers should be only one grade level and have time to plan with the regular education teacher. I currently have 4 classes in 3 different grade levels. How can I be expected to know and learn all content in 3 grade levels and be effective?
- All teachers need training on working with special needs students in general education settings. Some EC teachers do not have enough knowledge in this method of providing instruction.
- Every inclusion situation is different in several ways. First of all, it takes two to three years to reach the desired level of co-teaching since the teachers themselves must learn each other's style and expertise. Some teams work and others struggle for several reasons (background, personalities, territory, discipline issues). The inclusion teacher has to be flexible and willing to take on new roles with a minimum of team planning time. He has to be able to teach any subject and adjust materials to be presented in ways that will be most effective with students. I think experience is vital for inclusion to work well-especially experience with the inclusion model. #10—Demographics--My skills and knowledge in inclusion

practices have come from in-service training, workshops, and experience from both special education teaching and the seventeen years in regular education.

- If students with moderate to severe cognitive deficits are to be included in a general classroom they should have some type of "transition" period when coming from self-contained settings. Possibly a period of time that allows them a combination of self-contained/included class periods. This would allow them the time to make up any instructional gaps that may exist between the self-contained and general settings. #9 TE—It remains difficult to instill motivation and value into students when it is not reinforced outside of the school environment.
- Cohesive teacher management/instructional styles play a large part in the success of an inclusion team. A willingness to adapt your personal style is also important. The most successful team of teachers I've worked with kept an open mind about the implementation of "outside the box" strategies that didn't necessarily fall within their personal instructional/behavioral philosophies.
- Students treat me like a "sub". Classes with 16 EC students, including BED, multiple second language learners and another with 10 or so students are impossible!! Class size is a nightmare!!
- The effectiveness of the general education and special education teachers and their ability to work together are critical factors in the success of the co-teaching experience.
- People learn from other people, period.

- You must be able to get along with the teachers you are working with. They must respect the role of the special education teacher and how the special students fit into the regular classroom.
- Co-teaching can be an extremely effective method of meeting the needs of students with special needs, as long as the attitudes of both of the teachers are positive with regard to the co-teaching model. The special education teacher must share teaching responsibilities and not act as a teaching assistant.
- if special needs are severe, a special education classroom may be more appropriate than regular education settings.
- Because regular education teachers are the "teacher of record", they bear the responsibility for giving grades. In the inclusion classes where teachers give the End-of-course state exams, they are driven by unyielding local pacing guides. I am with six different classes. It took several weeks before the Alg I/Geo teachers felt comfortable with one in their room. Teachers who work together with inclusion practices for students would benefit from training so that both parties know ways to co-teach. I supplement instruction in the EOC classes. I frequently teach in one non-EOC math class, and completed mini learning projects in two. While my skills and talents might be better served if I taught more, that's not what the regular education teachers find most comfortable because of pressures with EOC's. However, when one of those teachers is out due to sickness, I teach and the regular education teacher is thrilled that is licensed, skilled math teacher is in charge that day.

- I believe EC students should be in the general education classroom to the fullest extent possible. However, I do not think it is fair to a student reading on a first grade level to be in an inclusive setting for reading at a fourth grade level. Inclusion is not for all students. I believe in meeting the individual needs of the students. If a child needs pull out services to be more successful and to learn then that is the way he or she needs to be served. Each of these questions depends on the individual student.
- I think many school systems and schools "jump" into inclusion services without proper training for both special and general educators. The lack of staff often prevents "inclusion" from meeting individual needs of EC students. I think you need to be selective when pairing general and special educators to teach in an inclusive classroom. It takes both teachers to make inclusion successful.
- I have been to some workshops on inclusion and have done research on the internet.
- The inclusion setting works well for the majority of my students. However, you have a few teachers who believe once they are identified, they belong to "EC" and they are not responsible for their education. Some students need pullout to remediate significant discrepancies especially in reading.
- This school year we are not allowed to pull outs. We were informed that all students grade 3-5 would be in an inclusion setting. Therefore, this limited those students who needed explicit instructions.
- in my opinion inclusion works best for high functioning students with disabilities.

- STATIC: I believe inclusion works well for some students. Every disabled child should have an opportunity to learn in their LRE, but their LRE should be determined case by case. It isn't feasible to think that every EC should receive pull out services or inclusion, both should be offered.
- Guilford County has provided some great workshops that were mandatory for the regular education and EC teacher-it gave excellent strategies! Unfortunately, it was only mandatory for teachers who were in that setting for that particular year. Inclusion should be a requirement for all teachers including specialist.
- not much when you stick them in a class of 50% disabled students. Again it depends on how you mix them up. Depends on the type and severity of the disability.
- One specifically titled as co-teaching/collaboration, however, licensure program was geared toward the collaborative model.
- While I do agree with the inclusive model, it is not an absolute. Some special needs students prefer and excel in a "pull out" or resource setting. The co-teaching model works in an ideal pairing of willing individuals. Therefore, there is a great variance in its implementation.
- Experience has taught me that some EC students do need special education classrooms. We need to always provide the full continuum of services, but students need to be able to move through the continuum as determined by need and not permanently relegated to one setting for their academic career.

- Marilyn Friend's video and books should be required viewing and practice for all co-teaching teams. Regular education teachers need to recognize what special education teachers bring to the table and view them as equals, not assistants. Special education teachers need support from building administration for schedule and planning. Central office needs to support inclusion and co-teaching by funding positions!
- Co-teaching success is dependent on the acceptance and inclusion in instruction by the general education teacher. Inclusion teachers being stretched across multiple curriculums and grade levels impede knowledge acquisition of content specifics. However, once exposed to the multiple settings, inclusion teachers have the advantage of understanding content development across grade levels; experiencing continuing levels of human growth/development (behaviors, etc. evidenced particularly at certain age ranges).
- All of these questions are dependent on the location (school) of the teachers and students. Administrative and colleague opinions differ building to building.
- ALL students can benefit from the classroom modifications that EC teachers make for their students. Having an extra set of hands is helpful in any classroom. It benefits no one for an EC teacher to sit in the back of the classroom waiting for the students to do independent work or to be a disciplinarian. Dividing up part of the lesson or taking turns teaching a chapter would benefit all involved.
- I think it would be <u>extremely</u> important to clarify what level of disability you are focusing on- My students are mildly handicapped and inclusion is very beneficial

for them. However, we have severely, profoundly multi-handicapped students who are non-verbal and non-ambulatory. I do question the value of an inclusive classroom for them and for other students. We have a teacher who places her students in art, music, and PE with approximately the same age peers but social interaction is not spontaneous and it is limited mostly to regular education students "doing for them" not with them. Co-teaching works with the right people and the right students. It can not be mandated without knowledge of the personalities and teaching styles of the teachers involved! And it only happens when both teachers believe that all students can learn! I gained knowledge by doing! We researched and implemented an inclusive model in 1990. I taught science, the regular education teacher taught social studies and we both monitored, planned, and evaluated students and ourselves daily. It was great fun because "we" were very compatible and had similar teaching philosophies.

- depends a great deal upon the materials.
- I certainly think there should be more inclusive practices than are currently happening in schools. But I feel some schools/systems are using an all or nothing rule of thumb and that's not a solution either. Inclusion—good; but it should not be a school wide decision for every child.
- My experience has been the biggest "teacher" for inclusion practices. I have read several books and articles about inclusion. Because our school has embraced inclusion we have had some workshop opportunities that I have taken advantage

of. One of the best experiences is working with the same regular education teachers so we develop a great working relationship.

- Each student is different and has individual needs. I don't believe that having only an inclusion program is good. I believe the EC and the regular teachers must be flexible in order to meet the individual student's needs. The EC teacher may need time in the schedule to also do small group remediation.